



APPENDIX 8-4

CORE SURVEY DATA

Appendix 8-4 – Core Survey Data

Cahermurphy Two Windfarm





DOCUMENT DETAILS

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1.

APPENDIX 8-4 (SURVEY DATA)

Table 1-1 Golden Plover Vantage Point Survey Data

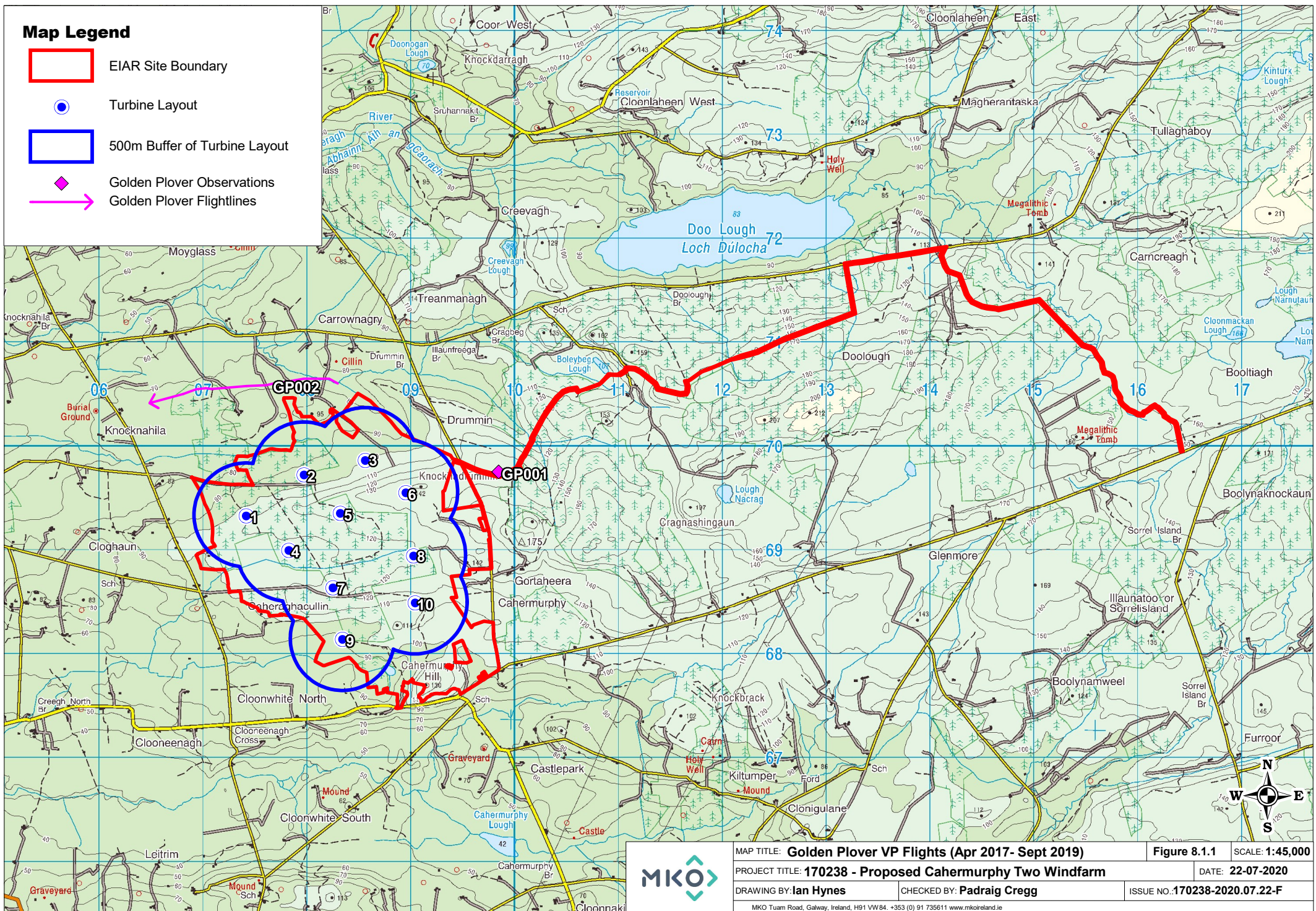
Map Ref No.	Date	VP	Species	No. of Birds	Time of Flight	Duration of Flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
GP001	25/03/2018	VP2	Golden Plover	30	14:54:00	20			20		B, (Cultivated and built land)	quantity approximate; height c.125m?	P.Troake
GP002	03/12/2018	VP1	Golden Plover	25	12:11:00	260			260		Circling and in Data	Flock of 25 GP circling over area for over 3 mins before flying west	TK

Table 1-2 Golden Plover Incidental Records

Map Ref No.	Date	Survey Type	Location	Species	Number of Individuals	Notes	Surveyor
GP001	15/01/2019	HHVP	3	Golden Plover	100	Circling over site near lough at 15:09 and headed West	JK
N/A	04/02/2019	HHVP	3	Golden Plover	25	Circling site and then settled on PB3	JoeK

Map Legend

-  EIAR Site Boundary
-  Turbine Layout
-  500m Buffer of Turbine Layout
-  Golden Plover Observations
-  Golden Plover Flightlines



MAP TITLE: **Golden Plover VP Flights (Apr 2017- Sept 2019)**

Figure 8.1.1

SCALE: 1:45,000

PROJECT TITLE: **170238 - Proposed Cahermurphy Two Windfarm**

DATE: **22-07-2020**

DRAWING BY: **Ian Hynes**

CHECKED BY: **Padraig Cregg**

ISSUE NO.: **170238-2020.07.22-F**

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Table 1-3 Hen Harrier Vantage Point Survey Data

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
HH001	08/09/2017	VP2	Hen Harrier	1	17:05:00	45		45			GA1, (Improved agricultural grassland) Travelling	Ringtail	PM
HH002	04/10/2017	VP3	Hen Harrier	1	11:35:00	78		78			WD4, (Conifer plantation) Forageing /hunting	Male	JK
HH003	30/12/2017	VP3	Hen Harrier	1	13:05:00	90	70	20			PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting, quartering ground along forest edge.	Adult Male	TK
HH004	25/03/2018	VP2	Hen Harrier	1	14:23:00	470	370	100			PB2, (Upland blanket bog) WD4, (Conifer plantation) GA1, (Improved agricultural grassland)	Adult male; height band 2,1,2,1 (see marks on flight line), up to 20m over forests	P.Troake

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
HH005	25/03/2018	VP2	Hen Harrier	1	14:32:00	300	70	80	150		PB2, (Upland blanket bog) WD4, (Conifer plantation) GA1, (Improved agricultural grassland)	Adult male; ascended to c.80m; same bird as obs.no.2	P.Troake
HH006	25/03/2018	VP2	Hen Harrier	1	16:43:00	120	120				PB2, (Upland blanket bog) GA1, (Improved agricultural grassland) Hunting	Male, height 1-2m	P.Troake
HH007	31/03/2018	VP2	Hen Harrier	1	16:11:00	85	70	15			GA1, (Improved agricultural grassland)	Male; height 15m dropping to 1-2m	P.Troake
HH008	31/03/2018	VP2	Hen Harrier	1	16:13:00	20	20				GA1, (Improved agricultural grassland) Hunting	Male	P.Troake
HH009	31/03/2018	VP2	Hen Harrier	1	16:14:00	120	120				GA1, (Improved agricultural grassland) Hunting	Male	P.Troake

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
HH0010	31/03/2018	VP2	Hen Harrier	1	16:17:00	30	30				GA1, (Improved agricultural grassland) WS, (Scrub/ transitional woodland) Hunting	Male	P.Troake
HH0011	31/03/2018	VP2	Hen Harrier	1	16:18:00	27	27				GA1, (Improved agricultural grassland) WS, (Scrub/ transitional woodland) Hunting	Male	P.Troake
HH0012	31/03/2018	VP2	Hen Harrier	1	16:26:00	100	100				GA1, (Improved agricultural grassland) WS, (Scrub/ transitional woodland) Hunting	Male	P.Troake
HH0013	31/03/2018	VP2	Hen Harrier	1	16:29:00	29	29				Hunting	Male	P.Troake

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
HH0014	17/04/2018	VP3	Hen Harrier	1	09:49:00	15			15		WD4, (Conifer plantation) Flying and hovering on the breeze, adult male		CMc
HH0015	14/05/2018	VP3	Hen Harrier	1	19:20:00	"160"	140	20			PB2, (Upland blanket bog) WD4, (Conifer plantation) hunting	Adult Male observed hunting over area of blanket bog, quartering ground about 2m above ground, before flying sw out of vision	TK
HH0016	22/05/2018	VP04	Hen Harrier	1	16:41:00	52	52				PB4, (Cutover bog) WD4, (Conifer plantation) Foraging	Female	JK
HH0017	31/07/2018	VP2	Hen Harrier	1	16:25:00	"10"	"10"				GA1, (Improved agricultural grassland) In flight	Female Hen Harrier observed briefly in flight before disappearing behind crest of hill to the south of vp.	TK

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
HH0018	04/10/2018	VP04	Hen Harrier	1	16:25:00	43		43			PB3, (Lowland blanket bog) WD4, (Conifer plantation) Travelling	Ringtail	JK
HH0019	15/05/2019	VP1	Hen Harrier	1	06:11:00	42	42				GA1, (Improved agricultural grassland) GS4, (Wet grassland) In flight	Male Hen Harrier observed in flight, travelling rather than actively hunting.	TK
HH0020	16/05/2019	VP2	Hen Harrier	1	10:56:00	318	318				PB2, (Upland blanket bog) GS4, (Wet grassland) GA1, (Improved agricultural grassland) Hunting	Male Hen Harrier seen hunting over area of bog/wet grassland. Very slow flight 1m above ground, quartering area of ground before flying south off site.	TK
HH0021	12/06/2019	VP04	Hen Harrier	1	18:40:00	62	50	12			PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	Male Hen Harrier hunting briefly.	TK

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
HH0022	02/07/2019	VP2	Hen Harrier	1	12:06:00	135	115	20			PB2, (Upland blanket bog) WD4, (Conifer plantation) GA1, (Improved agricultural grassland) Hunting	Male Hen Harrier quartering ground over are of bog/rough grassland, before flying west over coniferous forestry out of sight.	TK

Table 1-4 Hen Harrier Breeding Raptor Data

Map Ref. No.	Date	RVP	Species Name	No. of Birds	Time of flight	Duration of flight (s)	Habitat	Activity	Notes on habitat and activity	Comments	Surveyor
HH002	15/05/2017		Hen Harrier	1	11:20:00			Female		Foraging in band 1	JK
HH003	12/06/2017		Hen Harrier	1	09:14:00	42		Female northside of site. Heading west. Foraging / hunting		Female northside of site. Heading west. Foraging / hunting	JK
HH005	26/06/2017		Hen Harrier	1	10:35:00	34		Male travelling west. Just North of P3		Male travelling west. Just North of P3	JK
HH009	30/05/2018		Hen Harrier	1	17:52:00	"25"	PB2, (Upland blanket bog) WD4, (Conifer plantation)	In flight	PB2, (Upland blanket bog) WD4, (Conifer plantation) In flight	Brief view of Male Hen Harrier flying in north easterly direction.	TK

Table 1-5 Hen Harrier Roost Survey Data

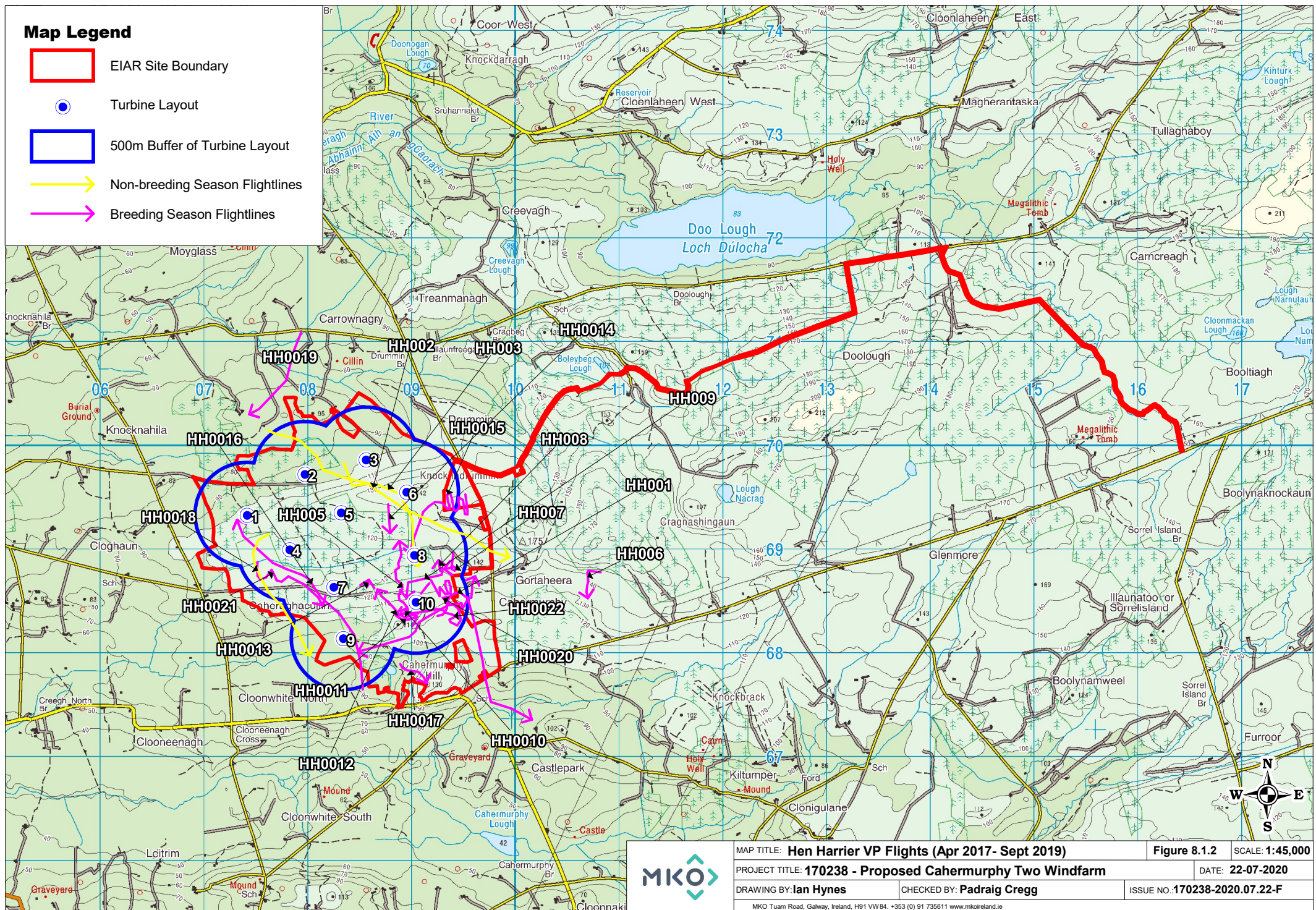
Final Ref. No.	Date	HHVP	Species Name	No. of Birds	Time of flight	Duration of flight (s)	Habitat	Activity	Notes on habitat and activity	Comments	Surveyor
HH007	28/02/2018	HHVP 2	Hen Harrier	1	16:10		PB2, (Upland blanket bog) WD4, (Conifer plantation) Flying 3-4 metres above ground in a direct line. Observed for approx 20 secs.	Adult Male. Seen during roost watch but not seen going to roost.	PB2, (Upland blanket bog) WD4, (Conifer plantation) Flying 3-4 metres above ground in a direct line. Observed for approx 20 secs. Adult Male. Seen during roost watch but not seen going to roost.	Flying 3-4 metres above ground in a direct line. Observed for approx 20 secs.	TK
HH004	13/11/2018	2	Hen Harrier	1	15:31	"120"		Hunting	Hunting	Male Hen Harrier perched on ground preening for 15 minutes before flying off and quartering ground hunting, hunting over area of bog/rough grassland and young forestry. No Hen Harriers seen going to roost.	TK
HH006	26/01/2019	HHVP 10	Hen Harrier	1	15:16:00	30	PB2, (Upland blanket bog) WD4, (Conifer plantation)	In flight- travelling.	PB2, (Upland blanket bog) WD4, (Conifer plantation) In flight-travelling.	Male Hen Harrier seen in flight over area of bog and conifer woodland. Approx height 10-15m above ground.	TK

Table 1-6 Hen Harrier Winter Walkover Survey Data

Map Ref. No.	Survey Date	Trans No.	Time of observation	Species	Target Species	Number of birds	Sex/age	Habitat	Activity	Habitat and Activity	Comments	Surveyor
HH002	04/03/2019		14:58:00	Hen Harrier	Y	2	Male & female		Travelling		Male & female	JK
HH003	10/03/2019	5	11:01:00	Hen Harrier	Y	1			travelling in band 1		Male Hen Harrier observed in flight approx. 10 m above ground.	TK

Map Legend

- EIAR Site Boundary
- Turbine Layout
- 500m Buffer of Turbine Layout
- Non-breeding Season Flightlines
- Breeding Season Flightlines



MAP TITLE: **Hen Harrier VP Flights (Apr 2017 - Sept 2019)**

Figure 8.1.2

SCALE: 1:45,000

PROJECT TITLE: **170238 - Proposed Cahermurphy Two Windfarm**

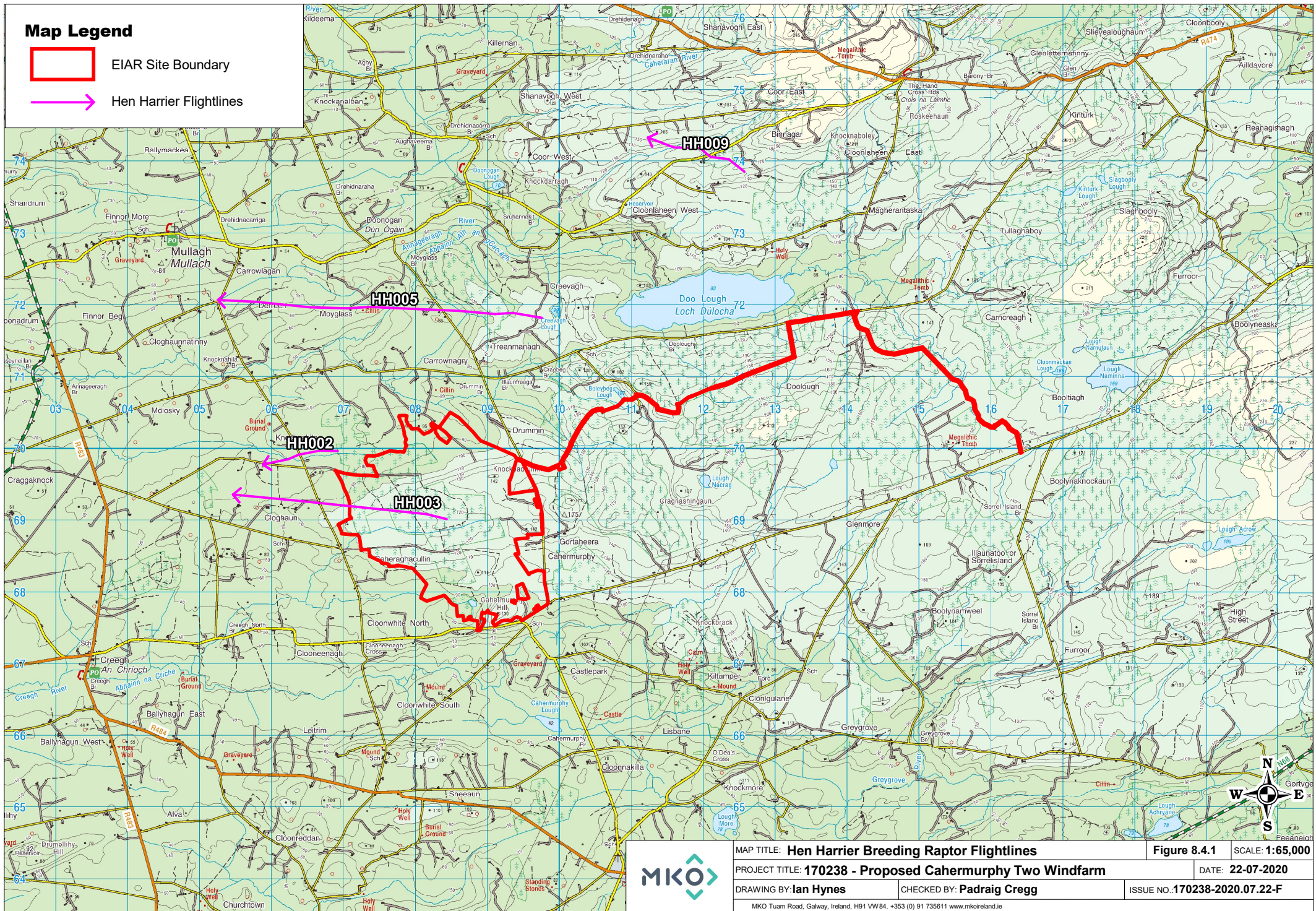
DATE: **22-07-2020**

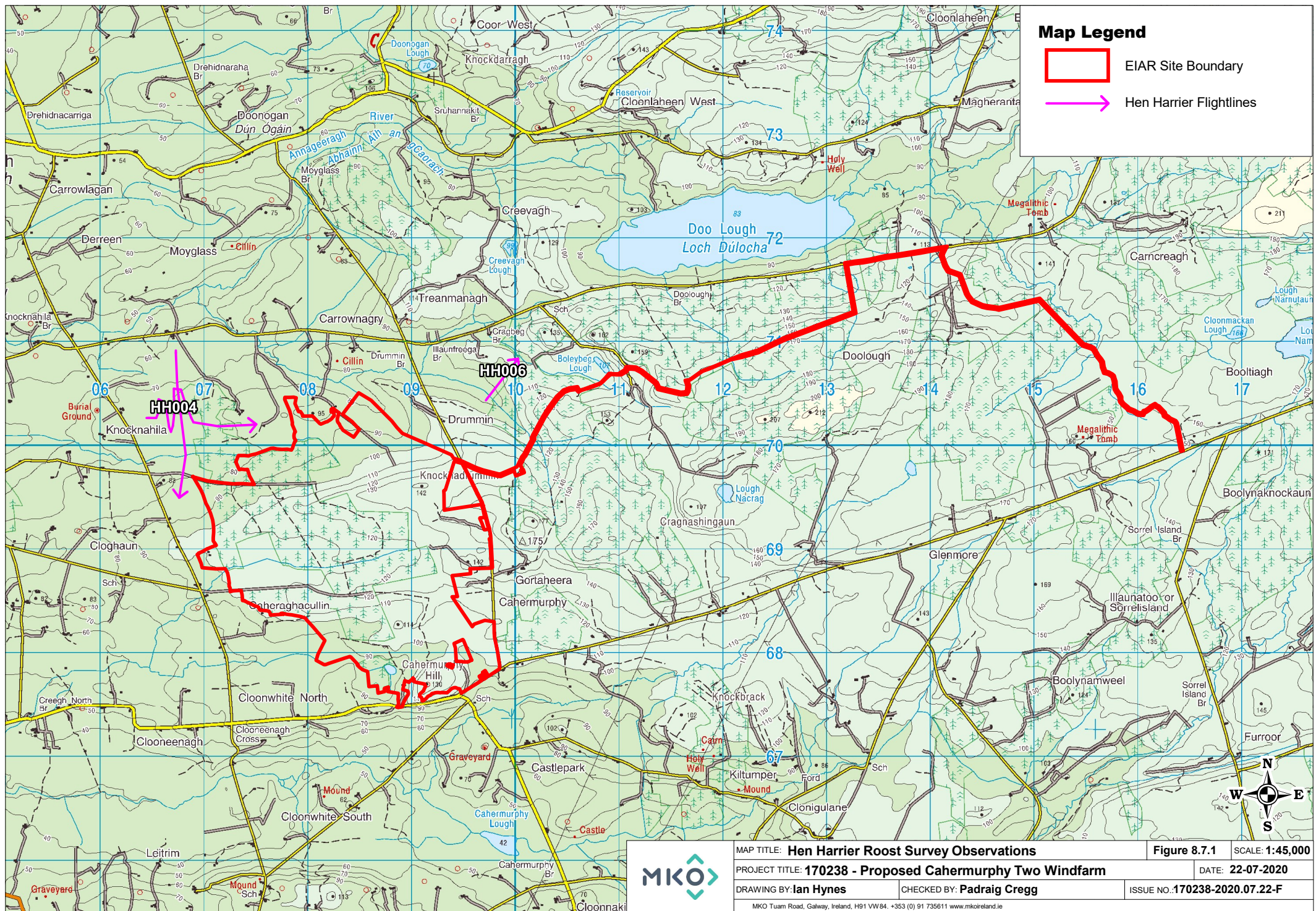
DRAWING BY: **Ian Hynes**

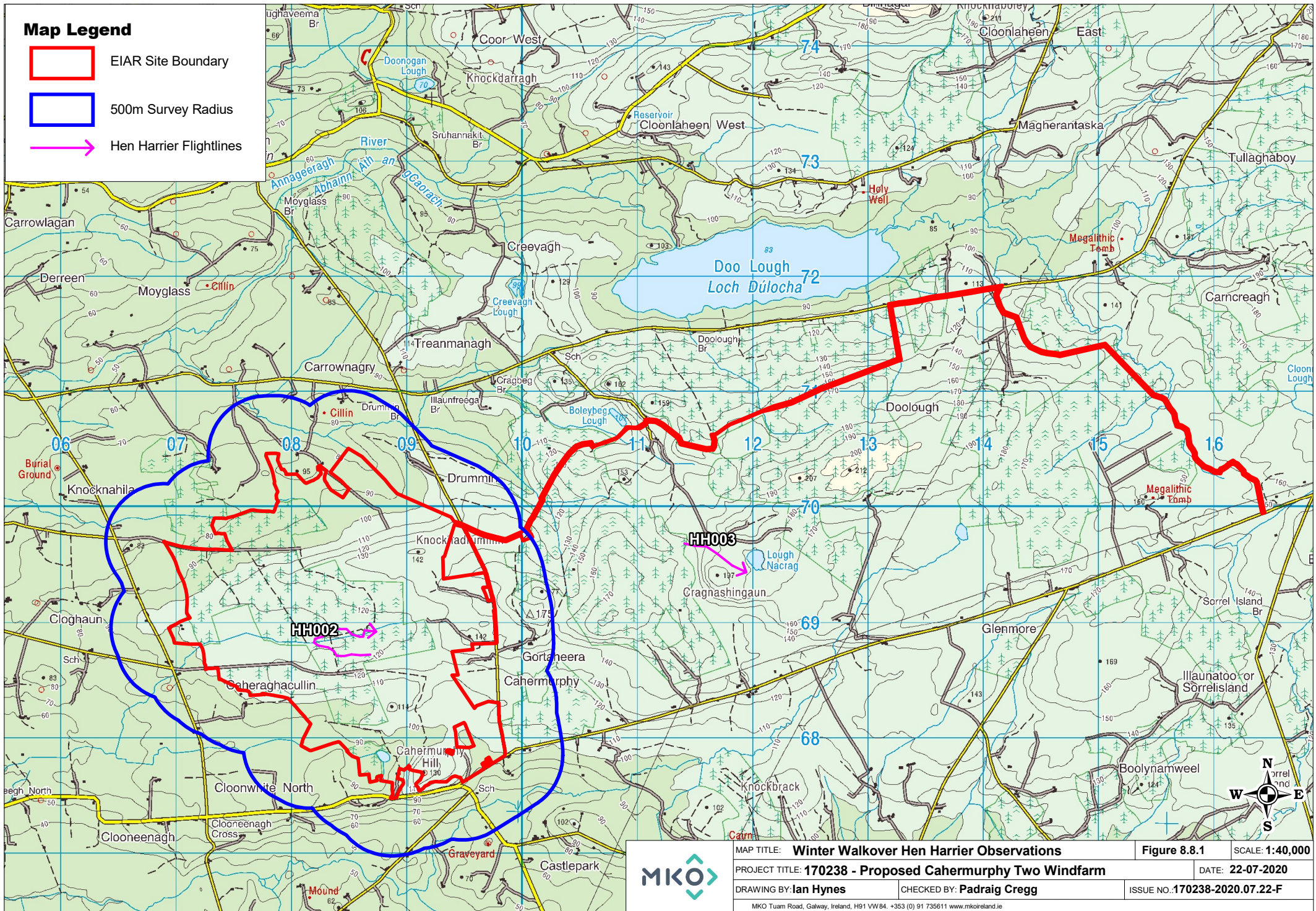
CHECKED BY: **Padraig Cregg**

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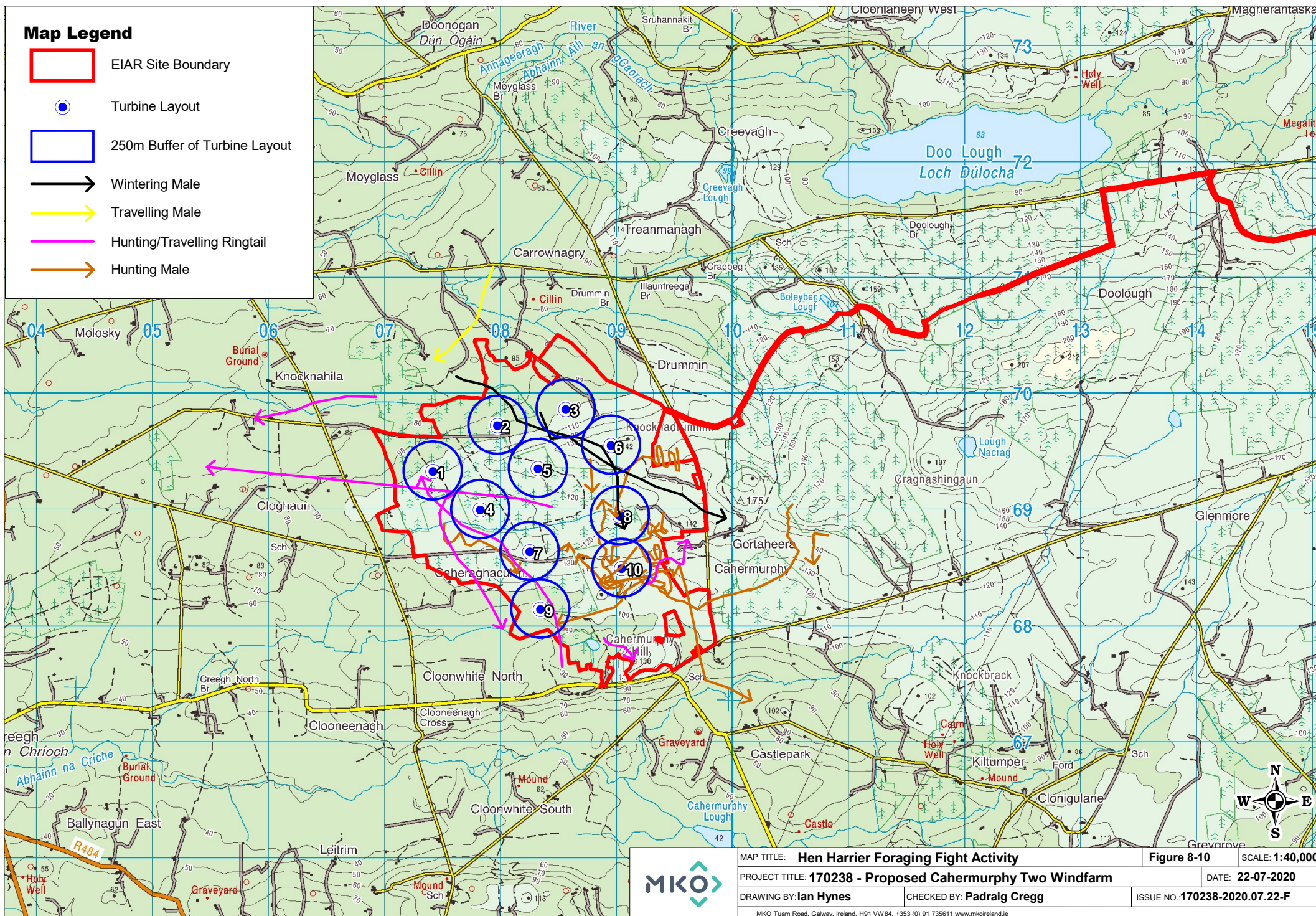


Table 1-7 Merlin Vantage Point Survey Data

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Duration Within 500m Buffer of Site Boundary	Duration Outside	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
ML001	14/05/2018	VP3	Merlin	1	15:43:00	"25"			"25"				PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	Female Merlin seen chasing Meadow Pipit over area of blanket bog approximately 100m from VP	TK

Table 1-8 Merlin Winter Walkover Survey Data

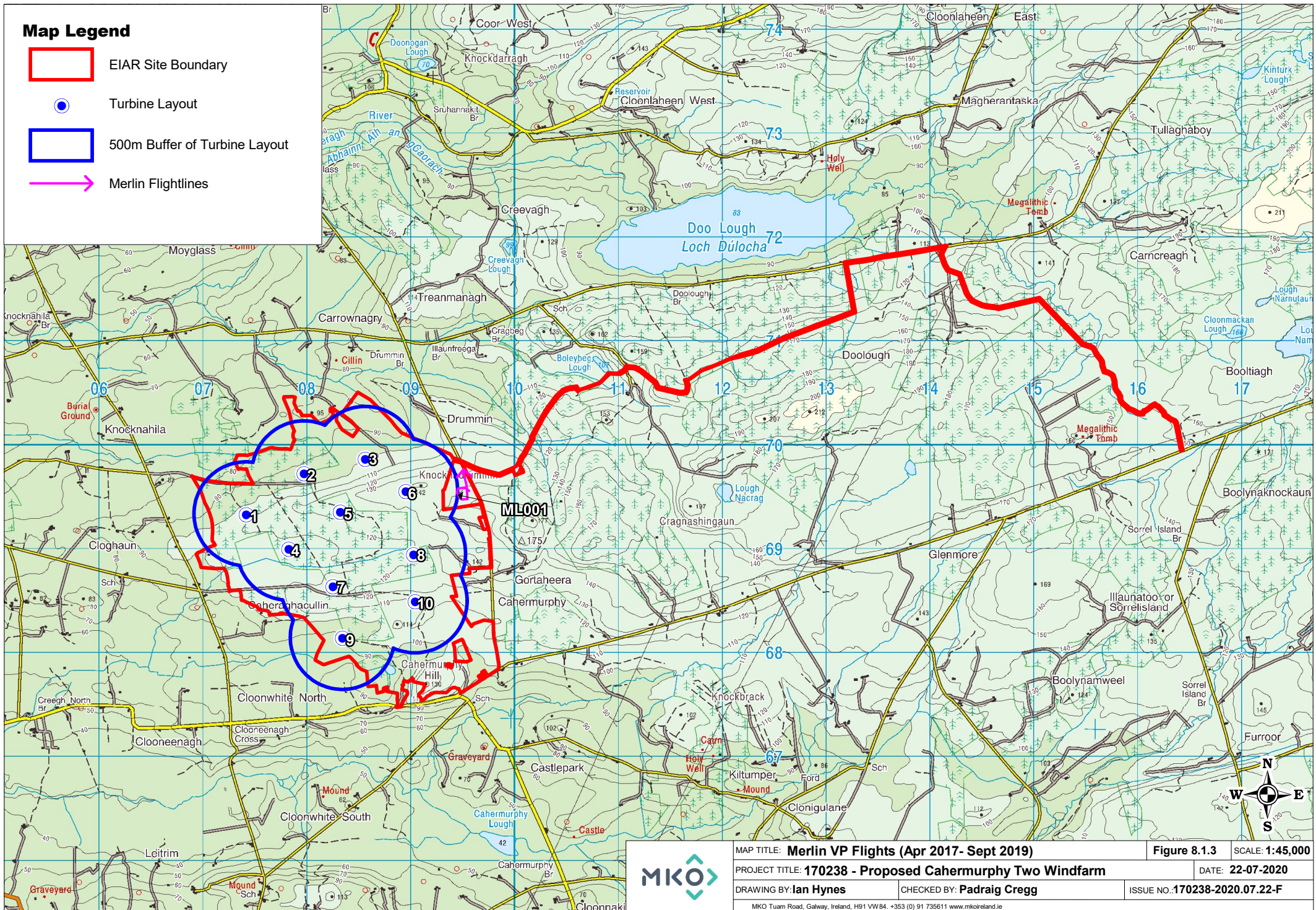
Map Ref. No.	Survey Date	Trans No.	Time of observation	Species	Target Species	Number of birds	Sex/age	Habitat	Activity	Habitat and Activity	Comments	Surveyor
ML001	04/03/2019		12:55:00	Merlin	Y	1	Male		Travelling			JK

Table 1-9 Merlin Incidental Records

Ref No.	Date	Survey Type	Location	Species	Number of Individuals	Notes	Surveyor
ML001	20/11/2017	HH Roost survey	HHVP10	Merlin	1	Adult Male ML recorded off site 15:32:00pm	JK
ML002	15/01/2019	HHVP	3	Merlin	1	Female on (East Coillte) site at 15:25/15:50. Perched then flew west	JK

Map Legend

-  EIAR Site Boundary
-  Turbine Layout
-  500m Buffer of Turbine Layout
-  Merlin Flightlines



MAP TITLE: **Merlin VP Flights (Apr 2017- Sept 2019)**

Figure 8.1.3

SCALE: 1:45,000

PROJECT TITLE: **170238 - Proposed Cahermurphy Two Windfarm**

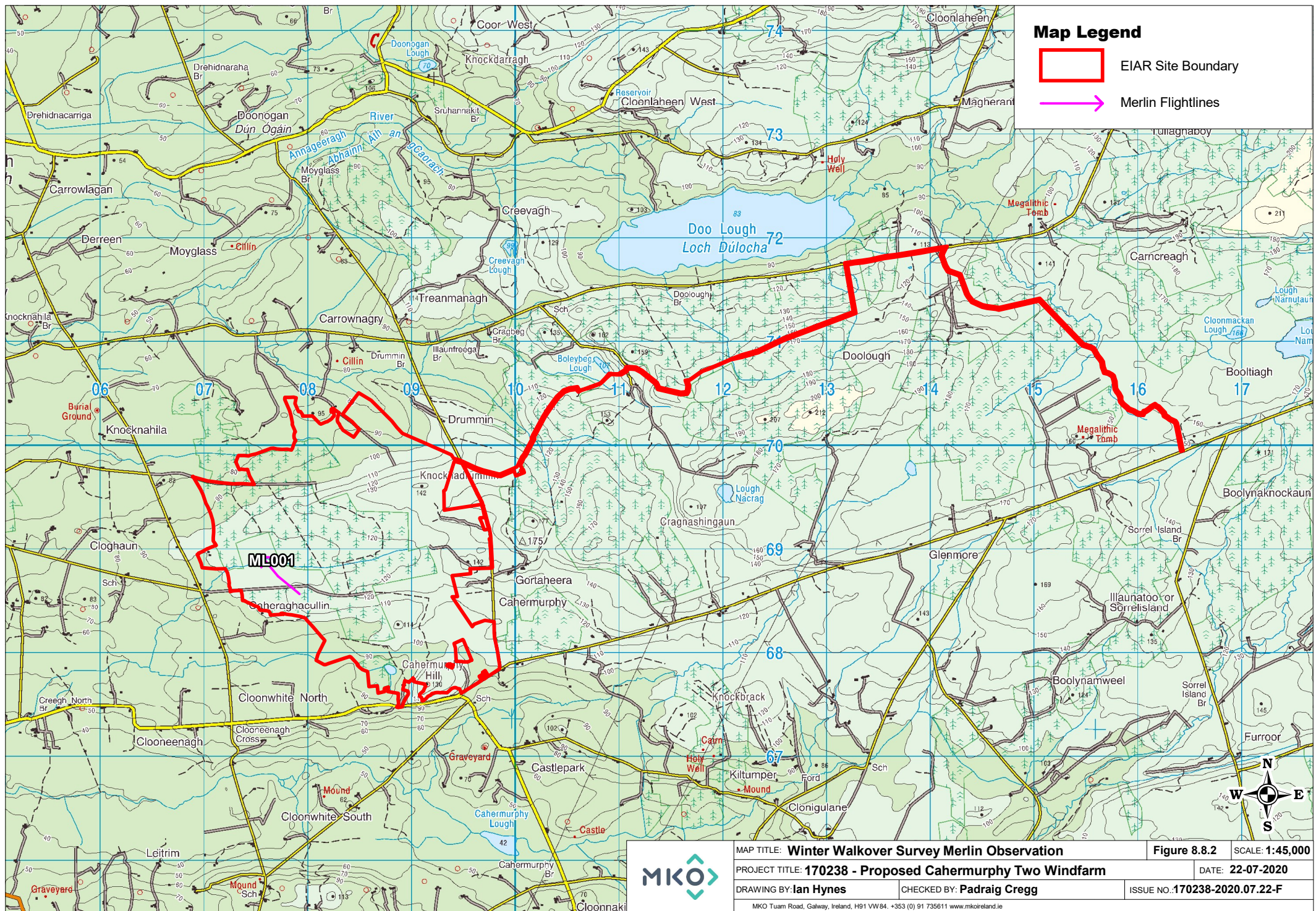
DATE: **22-07-2020**

DRAWING BY: **Ian Hynes**

CHECKED BY: **Padraig Cregg**

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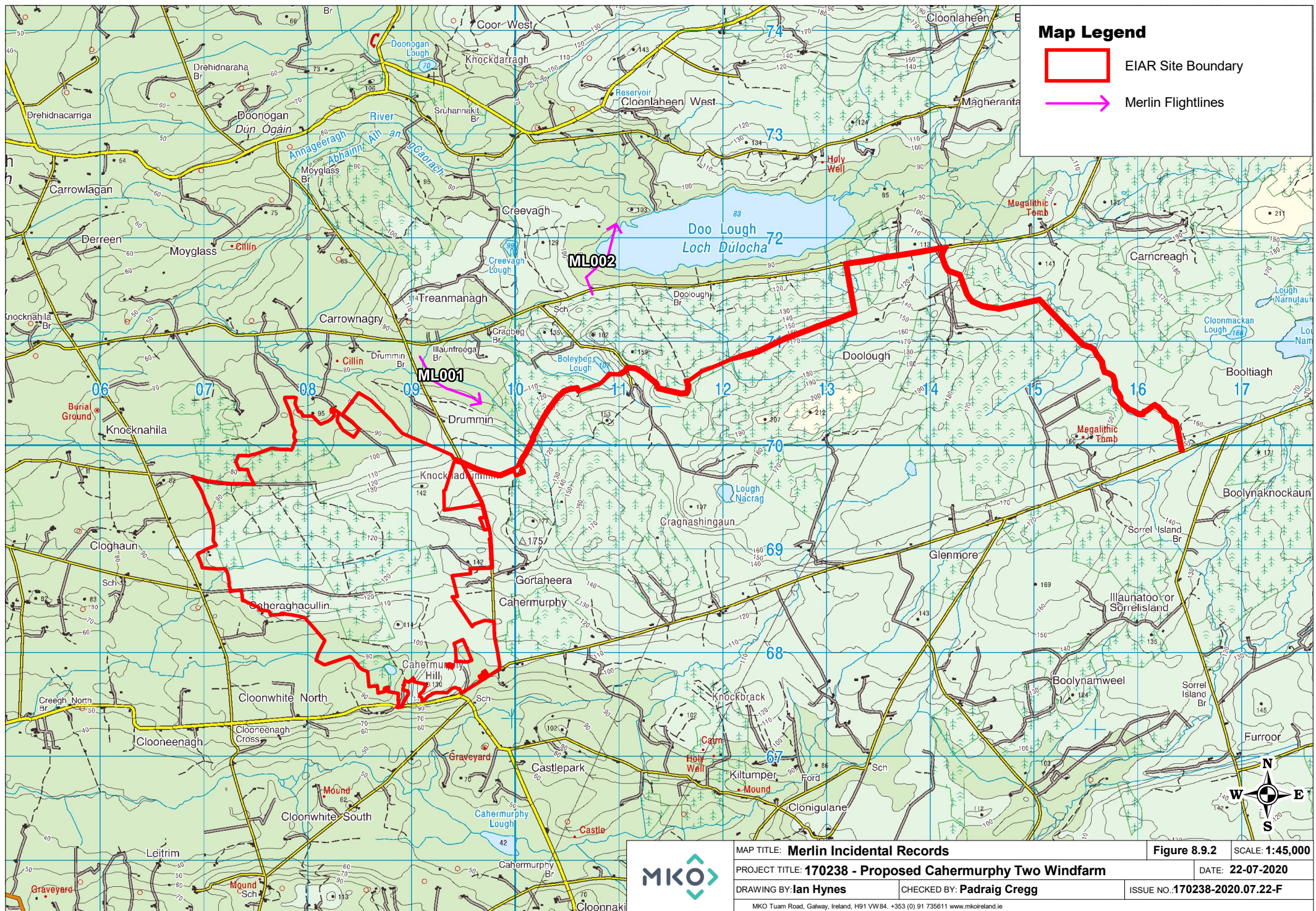


Table 1-10 Peregrine Falcon Vantage Point Survey Data

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
PE001	30/01/2019	VP2	Peregrine Falcon	1	15:22:00	25	25				GA1, (Improved agricultural grassland) Gliding flight	Peregrine Falcon in slow gliding flight approx 5-10m above ground.	TK
PE002	29/04/2019	VP2	Peregrine Falcon	1	16:10:00	158			30	128	WD4, (Conifer plantation) PB2, (Upland blanket bog) Soaring	Peregrine soaring very high.	TK

Table 1-11 Peregrine Falcon Breeding Raptor Survey Data

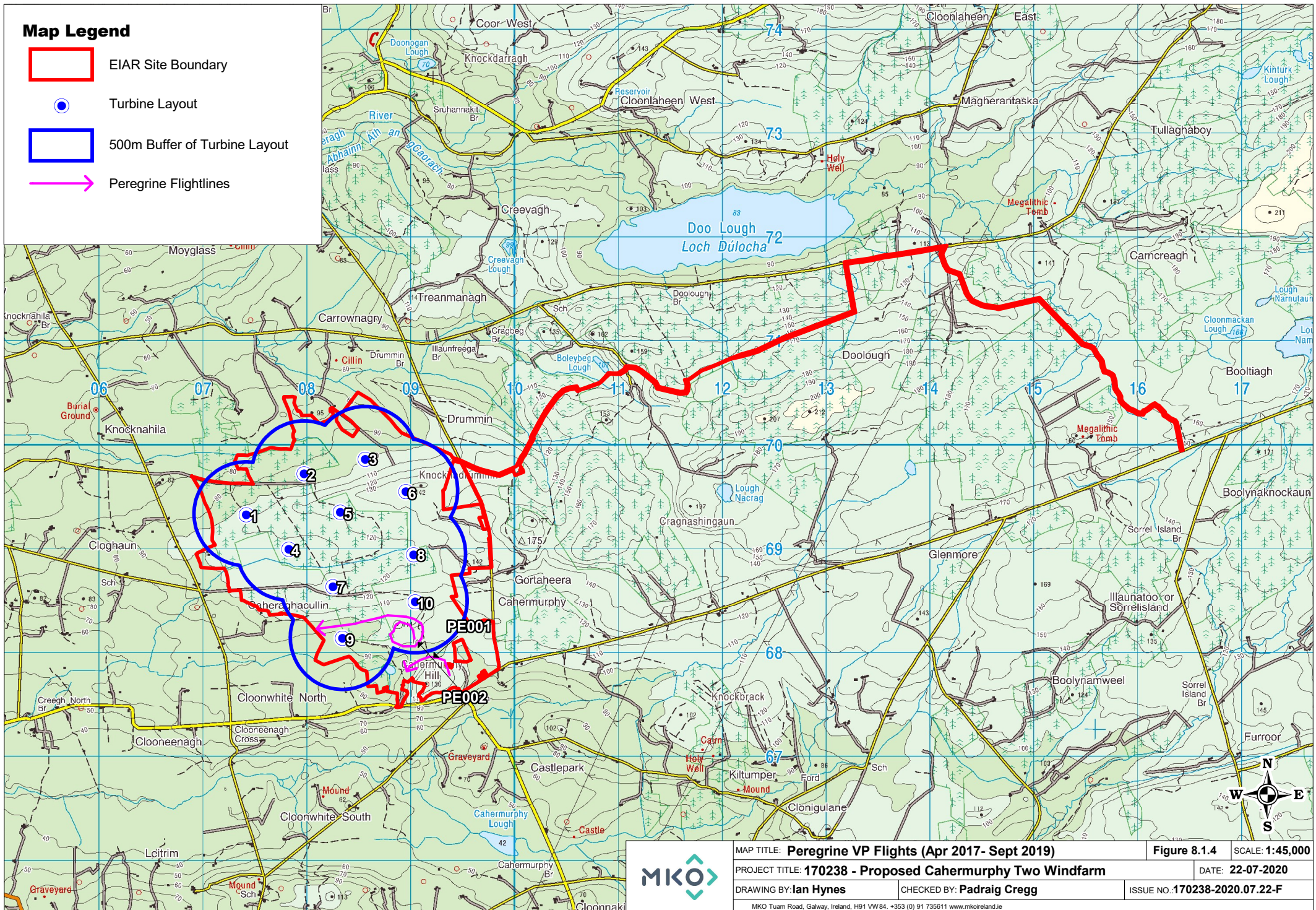
Map Ref. No.	Date	RVP	Species Name	No. of Birds	Time of flight	Duration of flight (s)	Habitat	Activity	Notes on habitat and activity	Comments	Surveyor
PE001	24/07/2017		Peregrine Falcon	2	14:08:00	48		male and Juvenile		hunting in westside of site, heading south	JK

Table 1-12 Peregrine Falcon Incidental Records

Ref No.	Date	Survey Type	Location	Species	Number of Individuals	Notes	Surveyor
N/A	01/02/2019	HHVP	4	Peregrine	1	Female	JoeK

Map Legend

-  EIAR Site Boundary
-  Turbine Layout
-  500m Buffer of Turbine Layout
-  Peregrine Flightlines



MAP TITLE: **Peregrine VP Flights (Apr 2017- Sept 2019)**

Figure 8.1.4

SCALE: 1:45,000

PROJECT TITLE: **170238 - Proposed Cahermurphy Two Windfarm**

DATE: **22-07-2020**

DRAWING BY: **Ian Hynes**

CHECKED BY: **Padraig Cregg**

ISSUE NO.: **170238-2020.07.22-F**

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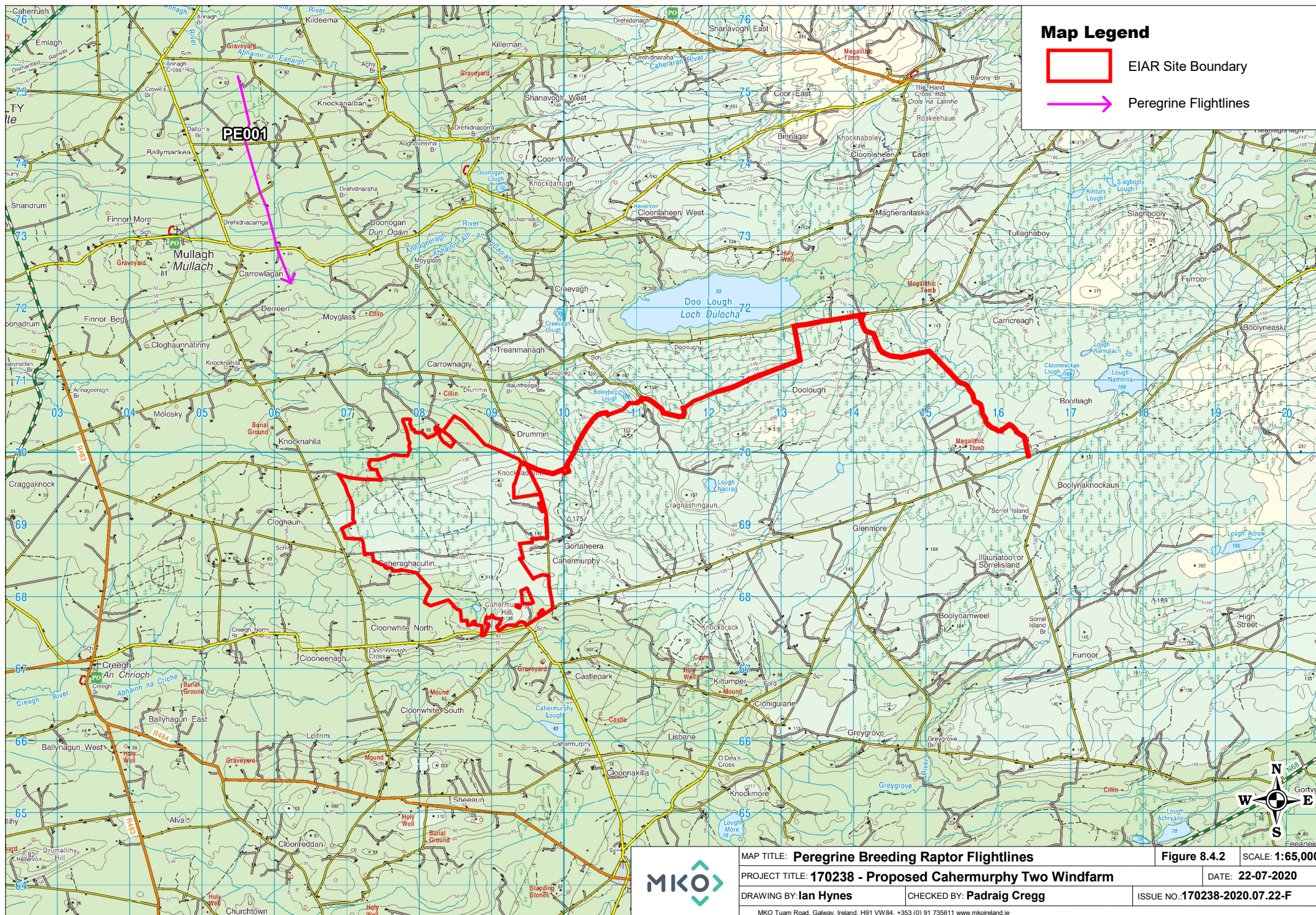
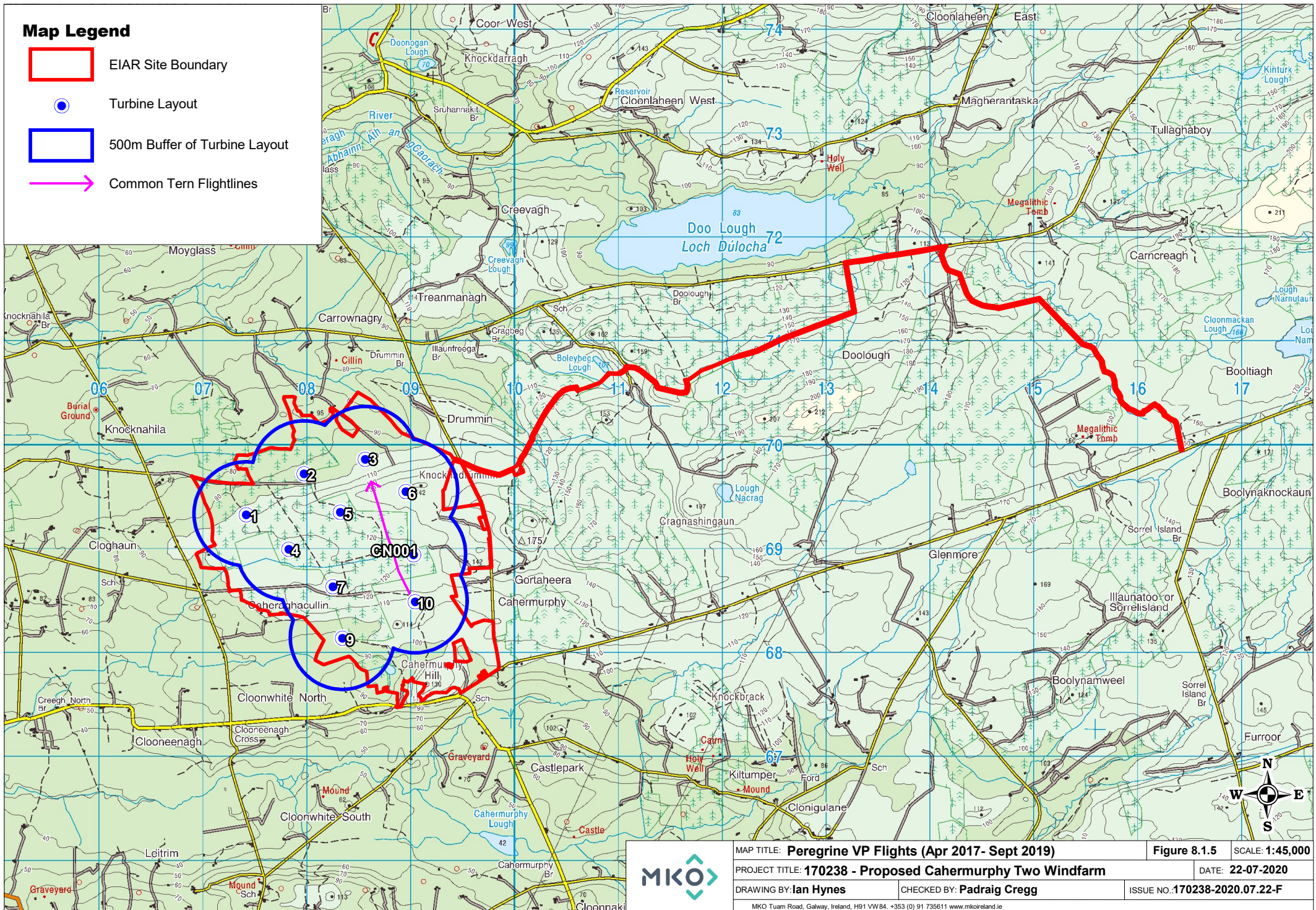


Table 1-13 Common Tern Vantage Point Survey Data

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
CN001	07/09/2017	VP3	Common Tern	1	17:15:00	44			44		WD4, (Conifer plantation) Travelling		PM

Map Legend

-  EIAR Site Boundary
-  Turbine Layout
-  500m Buffer of Turbine Layout
-  Common Tern Flightlines



MAP TITLE: **Peregrine VP Flights (Apr 2017- Sept 2019)**

Figure 8.1.5

SCALE: 1:45,000

PROJECT TITLE: **170238 - Proposed Cahermurphy Two Windfarm**

DATE: **22-07-2020**

DRAWING BY: **Ian Hynes**

CHECKED BY: **Padraig Cregg**

ISSUE NO.: **170238-2020.07.22-F**

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Table 1-14 Curlew Incidental Records

Ref No.	Date	Survey Type	Location	Species	Number of Individuals	Notes	Surveyor
CU001	24/07/2017	Breeding Raptor		Curlew	12	flock travelling east to west @10:20 for 64 seconds	Joe K

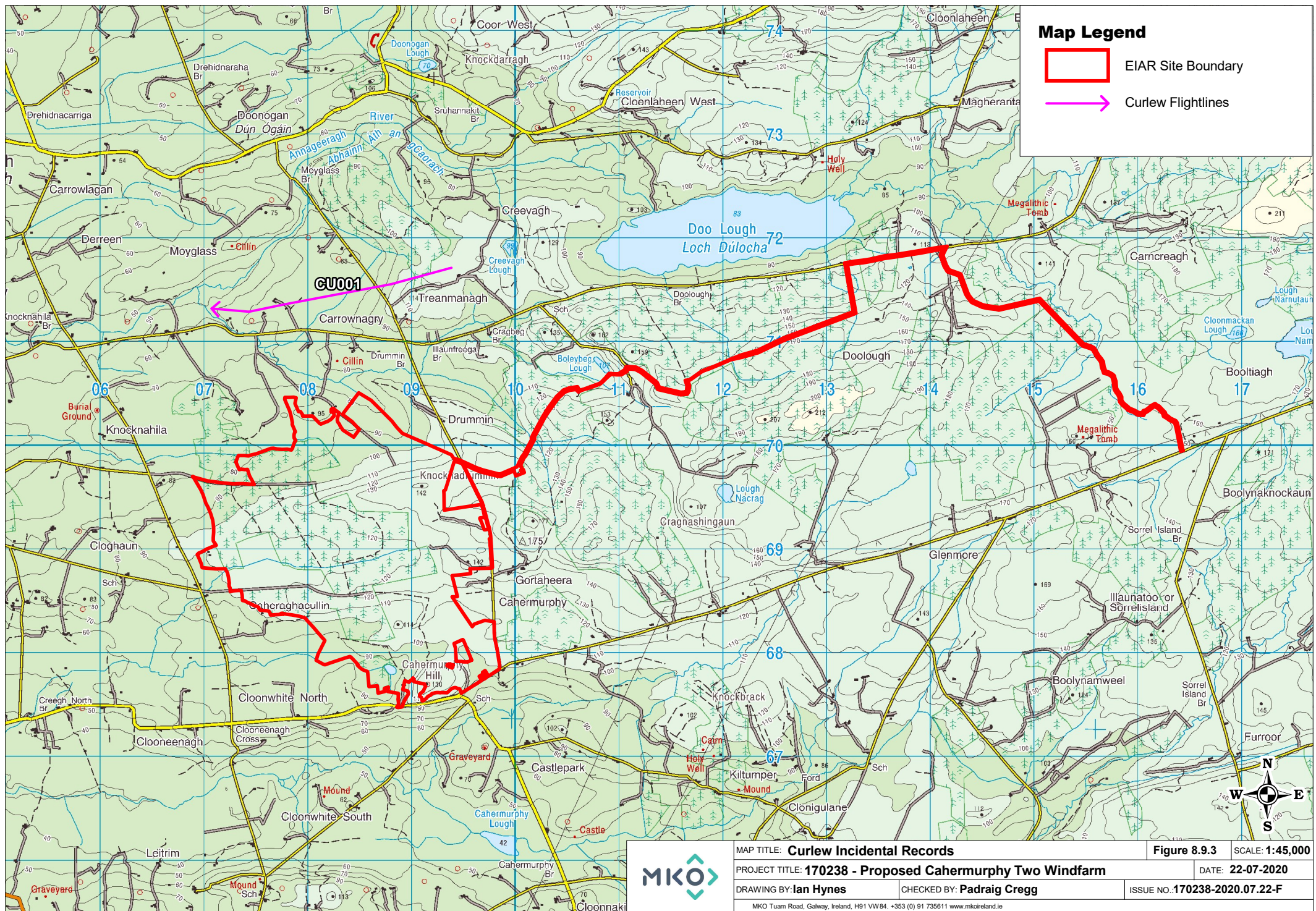


Table 1-15 Herring Gull Vantage Point Survey Data

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
HG001	05/04/2017	VP1	Herring Gull	3	10:06:00	222	20	80	122		GA1, (Improved agricultural grassland) Spiralling		JK
HG002	05/04/2017	VP1	Herring Gull	5	10:21:00	119	48	0	71		GA1, (Improved agricultural grassland) Spiralling		JK
HG003	05/04/2017	VP1	Herring Gull	2	11:23:00	218	18	36	164		GA1, (Improved agricultural grassland) travelling		JK
HG004	03/05/2017	VP1	Herring Gull	3	16:20:00	125		90	35		GA1, (Improved agricultural grassland) Travelling		JK
HG005	03/05/2017	VP1	Herring Gull	1	16:48:00	90			90		GA1, (Improved agricultural grassland) WD4, (Conifer plantation) Travelling		JK

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
HG006	03/05/2017	VP1	Herring Gull	2	17:10:00	58		58			GA1, (Improved agricultural grassland) Travelling		JK
HG007	03/05/2017	VP1	Herring Gull	6	18:05:00	315			315		GA1, (Improved agricultural grassland) Travelling/circling		JK
HG008	05/05/2017	VP2	Herring Gull	2	17:05:00	70	35	35			GS4, (Wet grassland) WD4, (Conifer plantation) Travelling		JK
HG009	05/05/2017	VP2	Herring Gull	2	20:15:00	55		55			GS4, (Wet grassland) WD4, (Conifer plantation) Travelling		JK
HG0010	06/06/2017	VP1	Herring Gull	7	09:40:00	500		500			GA1, (Improved agricultural grassland) Travelling		JK

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
HG0011	06/06/2017	VP1	Herring Gull	2	10:25:00	131		131			GA1, (Improved agricultural grassland) Travelling		JK
HG0012	06/06/2017	VP1	Herring Gull	5	10:51:00	262		262			GA1, (Improved agricultural grassland) Travelling		JK
HG0013	06/06/2017	VP1	Herring Gull	2	10:55:00	173	90	83			GA1, (Improved agricultural grassland) Travelling		JK
HG0014	06/06/2017	VP1	Herring Gull	1	10:57:00	188		188			GA1, (Improved agricultural grassland) Travelling		JK
HG0015	07/06/2017	VP2	Herring Gull	3	12:05:00	85		85			GA1, (Improved agricultural grassland) Travelling		JK
HG0016	08/06/2017	VP3	Herring Gull	2	12:30:00	75		75			GS4, (Wet grassland) Travelling		JK
HG0017	08/06/2017	VP3	Herring Gull	3	12:40:00	95		95			WD4, (Conifer plantation) Travelling		JK

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
HG0018	08/06/2017	VP3	Herring Gull	5	01:15:00	80		80			WD4, (Conifer plantation) Travelling		JK
HG0019	08/06/2017	VP3	Herring Gull	1	01:55:00	76		76			WD4, (Conifer plantation) Travelling		JK
HG0020	08/06/2017	VP3	Herring Gull	2	02:25:00	111	20	91			WD4, (Conifer plantation) Travelling		JK
HG0021	07/07/2017	VP1	Herring Gull	5	10:12:00	362		362			GA1, (Improved agricultural grassland) Travelling		JK
HG0022	07/07/2017	VP1	Herring Gull	2	11:36:00	260		80	180		GA1, (Improved agricultural grassland) Travelling		JK
HG0023	19/07/2017	VP3	Herring Gull	15	01:35:00	80			80		WD4, (Conifer plantation) Travelling		JK
HG0024	19/07/2017	VP3	Herring Gull	9	03:37:00	101			101		GS4, (Wet grassland) WD4, (Conifer plantation) Travelling		JK

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
HG0025	25/07/2017	VP2	Herring Gull	12	10:35:00	195	75		120		GA1, (Improved agricultural grassland) Travelling		JK
HG0026	25/07/2017	VP2	Herring Gull	40	12:08:00	627	120	145	362		GA1, (Improved agricultural grassland) Travelling		JK
HG0027	25/07/2017	VP2	Herring Gull	18	12:40:00	540	60	148	332		GA1, (Improved agricultural grassland) Travelling		JK
HG0028	25/07/2017	VP2	Herring Gull	12	02:25:00	130	75	25	30		GA1, (Improved agricultural grassland) Travelling/feeding		JK
HG0029	25/07/2017	VP2	Herring Gull	19	02:58:00	247	91	26	130		GA1, (Improved agricultural grassland) Travelling		JK
HG0030	26/07/2017	VP3	Herring Gull	3	12:36:00	85			85		WD4, (Conifer plantation) Travelling		JK

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
HG0031	02/08/2017	VP1	Herring Gull	1	07:08:00	94	14	80	0	0	GA1, (Improved agricultural grassland) Travelling		JH
HG0032	02/08/2017	VP1	Herring Gull	1	09:38:00	81	81	0	0	0	GA1, (Improved agricultural grassland) Travelling		JH
HG0033	02/08/2017	VP1	Herring Gull	1	10:27:00	48	0	48	0	0	GA1, (Improved agricultural grassland) Travelling		JH
HG0034	02/08/2017	VP1	Herring Gull	1	10:41:00	102	0	102	0	0	GA1, (Improved agricultural grassland) Travelling		JH
HG0035	02/08/2017	VP1	Herring Gull	1	11:04:00	72	0	72	0	0	GA1, (Improved agricultural grassland) Travelling and landing on ESB pole		JH

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
HG0036	15/08/2017	VP2	Herring Gull	3	09:29:00	104	55	49	0	0	GA1, (Improved agricultural grassland) Landing in GA1 - Foraging		JH
HG0037	15/08/2017	VP2	Herring Gull	1	09:34:00	43	0	43	0	0	GA1, (Improved agricultural grassland) Travelling		JH
HG0038	15/08/2017	VP2	Herring Gull	2	09:42:00	38	38	0	0	0	GA1, (Improved agricultural grassland) Landing in GA1 - Foraging		JH
HG0039	15/08/2017	VP2	Herring Gull	15	10:10:00	88	14	74	0	0	GA1, (Improved agricultural grassland) Landing in GA1 - Foraging		JH

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
HG0040	15/08/2017	VP2	Herring Gull	1	11:30:00	112	0	37	75	0	GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) Travelling		JH
HG0041	19/02/2018	VP1	Herring Gull	2	08:05:00	85			85		GS4, (Wet grassland) Travelling		JK
HG0042	19/02/2018	VP1	Herring Gull	3	09:20:00	168			168		GS4, (Wet grassland) Travelling		JK
HG0043	19/02/2018	VP1	Herring Gull	1	10:55:00	127			127		GS4, (Wet grassland) Travelling		JK
HG0044	19/02/2018	VP1	Herring Gull	16	11:46:00	248			248		GS2, (Dry meadows and grassy verges) Travelling		JK
HG0045	12/03/2018	VP1	Herring Gull	3	13:06:00	122			122		GS4, (Wet grassland) WD4, (Conifer plantation) Travelling		JK

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
HG0046	12/03/2018	VP1	Herring Gull	11	13:48:00	241			241		GS4, (Wet grassland) WD4, (Conifer plantation) Travelling		JK
HG0047	12/03/2018	VP1	Herring Gull	7	15:25:00	93			93		GS4, (Wet grassland) WD4, (Conifer plantation) Travelling		JK
HG0048	12/05/2018	VP2	Herring Gull	1	17:12:00	"30"					WD4, (Conifer plantation) Flying	Adult Herring Gull flying in a northerly direction over site	TK
HG0049	24/05/2018	VP04	Herring Gull	4	14:10:00	72			72		PB4, (Cutover bog) WD4, (Conifer plantation) Travelling	Four Birds	JK
HG0050	05/07/2018	VP04	Herring Gull	3	13:20:00	52			52		PB4, (Cutover bog) WD4, (Conifer plantation) Travelling		JK

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
HG0051	05/07/2018	VP04	Herring Gull	7	14:55:00	73			73		PB4, (Cutover bog) WD4, (Conifer plantation) Travelling		JK
HG0052	25/07/2018	VP1	Herring Gull	1	17:46:00	325			325		Adult	Herring Gull circling over site before flying south east	TK
HG0053	26/07/2018	VP3	Herring Gull	2	13:21:00	75		75			Adult in flight	Pair of Herring gull in flight	TK
HG0054	09/08/2018	VP1	Herring Gull	1	11:55:00	40	0	0	40	0	GA1, (Improved agricultural grassland) Flying	Adult	CMc
HG0055	06/02/2019	VP1	Herring Gull	2	11:44:00	38		38			GS4, (Wet grassland) Travelling		JoeK
HG0056	06/02/2019	VP1	Herring Gull	5	12:20:00	136			136		Travelling		JoeK
HG0057	06/02/2019	VP1	Herring Gull	1	12:25:00	44	44				Travelling		JoeK
HG0058	06/02/2019	VP1	Herring Gull	2	13:10:00	68		68			Travelling		JoeK

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
HG0059	06/02/2019	VP1	Herring Gull	2	15:48:00	183		183			Circling/Perching		JoeK
HG0060	06/02/2019	VP1	Herring Gull	1	16:35:00	127		127			Circling/Perching		JoeK
HG0061	07/03/2019	VP2	Herring Gull	1	07:20:00	33			33		PB3, (Lowland blanket bog) WD4, (Conifer plantation) Travelling		JK
HG0062	07/03/2019	VP2	Herring Gull	4	08:25:00	28			28		Travelling		JK
HG0063	07/03/2019	VP2	Herring Gull	3	11:35:00	47			47		Travelling		JK
HG0064	15/03/2019	VP1	Herring Gull	1	06:30:00	68		68			GA1, (Improved agricultural grassland) Travelling		JK
HG0065	15/03/2019	VP1	Herring Gull	2	10:20:00	131			131		Travelling		JK
HG0066	15/03/2019	VP1	Herring Gull	2	10:35:00	44		44			Travelling		JK
HG0067	15/03/2019	VP1	Herring Gull	2	12:05:00	52		52			Travelling		JK

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
HG0068	19/03/2019	VP3	Herring Gull	5	07:15:00	68			68		PB3, (Lowland blanket bog) WD4, (Conifer plantation) Travelling		JK
HG0069	19/03/2019	VP3	Herring Gull	2	07:44:00	42			42		Travelling		JK
HG0070	15/05/2019	VP1	Herring Gull	1	08:38:00	124			124		GA1, (Improved agricultural grassland) WD4, (Conifer plantation) In flight	Herring Gull circling over site.	TK
HG0071	16/05/2019	VP2	Herring Gull	1	07:52:00	82			82		GA1, (Improved agricultural grassland) WD4, (Conifer plantation) GS4, (Wet grassland) In flight	Herring Gull observed in flight.	TK

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
HG0072	28/06/2019	VP2	Herring Gull	12	18:33:00	135	10	35	90		PB2, (Upland blanket bog) GA1, (Improved agricultural grassland) WD4, (Conifer plantation) In flight, circling.	Flock of 12 Herring Gulls, circling before landing in reseeded field to south of Vantage Point.	TK
HG0073	03/09/2019	VP1	Herring Gull	12	08:42:00	55		55			GA1, (Improved agricultural grassland) Travelling		JK
HG0074	03/09/2019	VP1	Herring Gull	10	09:52:00	33		33			GA1, (Improved agricultural grassland) Travelling		JK
HG0075	03/09/2019	VP1	Herring Gull	2	09:58:00	42		42			GA1, (Improved agricultural grassland) Travelling		JK
HG0076	03/09/2019	VP1	Herring Gull	5	11:49:00	48		48			GA1, (Improved agricultural grassland) Travelling		JK

Table 1-16 Herring Gull Vantage Point Survey Data (Non-Visual Records)

Final Ref No.	Date	VP	Species	Target Spp (N/Y)	No. of Birds	Habitat	Activity	Notes on habitat and activity	Comments	Surveyor
N/A	07/06/2017	VP2	Herring Gull	Y	15	GA1, (Improved agricultural grassland)	Feeding	GA1, (Improved agricultural grassland) Feeding		JK

Table 1-17 Herring Gull Breeding Walkover Survey Data

Map Ref. No.	Survey Date	Trans No.	Time of observation	Species	Target Species	Number of birds	Habitat	Activity	Comments	Surveyor
HG001	01/04/2019		10:05:00	Herring Gull	Y	7	PB4, (Cutover bog) WD4, (Conifer plantation)	Travelling		JK

Table 1-18 Herring Gull Winter Transect Survey Data

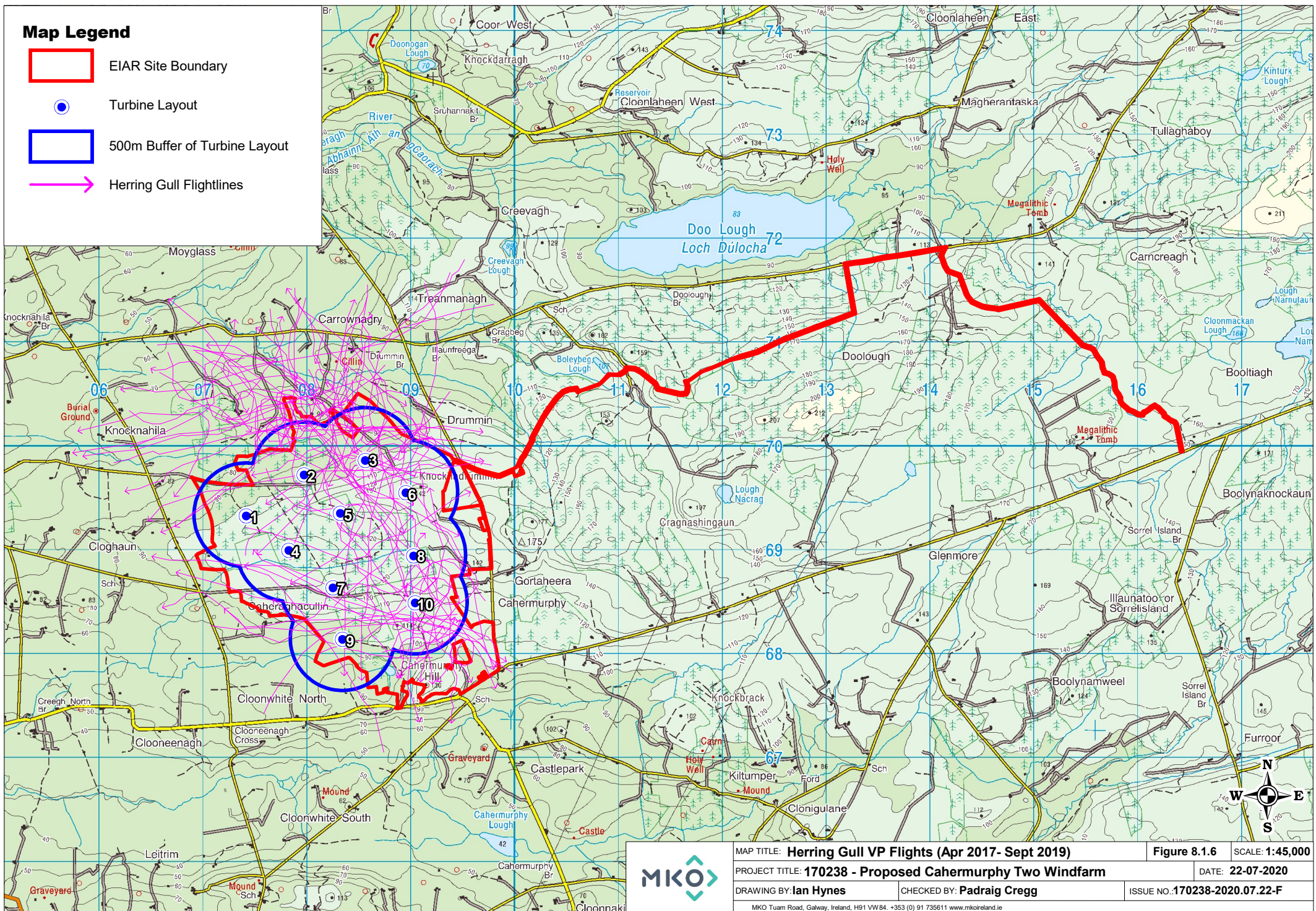
Map Ref. No.	Survey Date	Trans No.	Time of observation	Species	Target Species	Number of birds	Sex/age	Habitat	Activity	Habitat and Activity	Comments	Surveyor
HG001	02/10/2018	A		Herring Gull	Y	4		WD4, (Conifer plantation) GA1, (Improved agricultural grassland) BL3, (Buildings and artificial surfaces)	travelling in band 4	WD4, (Conifer plantation) GA1, (Improved agricultural grassland) BL3, (Buildings and artificial surfaces)		CMc
HG002	29/01/2019			Herring Gull	Y	2			Travelling			JK
HG003	29/01/2019			Herring Gull	Y	2			Travelling			JK
HG004	29/01/2019			Herring Gull	Y	5			Travelling			JK

Table 1-19 Herring Gull Incidental Records

Ref No.	Date	Survey Type	Location	Species	Number of Individuals	Notes	Surveyor
HG001	16/04/2018	VP Survey	Cahermurphy VP1	Herring Gull	2	Flew west to east on the northern side of the VP during the break between watches	CM
HG002	20/03/2019	HHVP	5	Herring Gull	7	travelling over site	Joe K
HG003	21/03/2019	HHVP	10	Herring Gull	3	travelling over site	Joe K

Map Legend

-  EIAR Site Boundary
-  Turbine Layout
-  500m Buffer of Turbine Layout
-  Herring Gull Flightlines



MAP TITLE: **Herring Gull VP Flights (Apr 2017- Sept 2019)**

Figure 8.1.6

SCALE: 1:45,000

PROJECT TITLE: **170238 - Proposed Cahermurphy Two Windfarm**

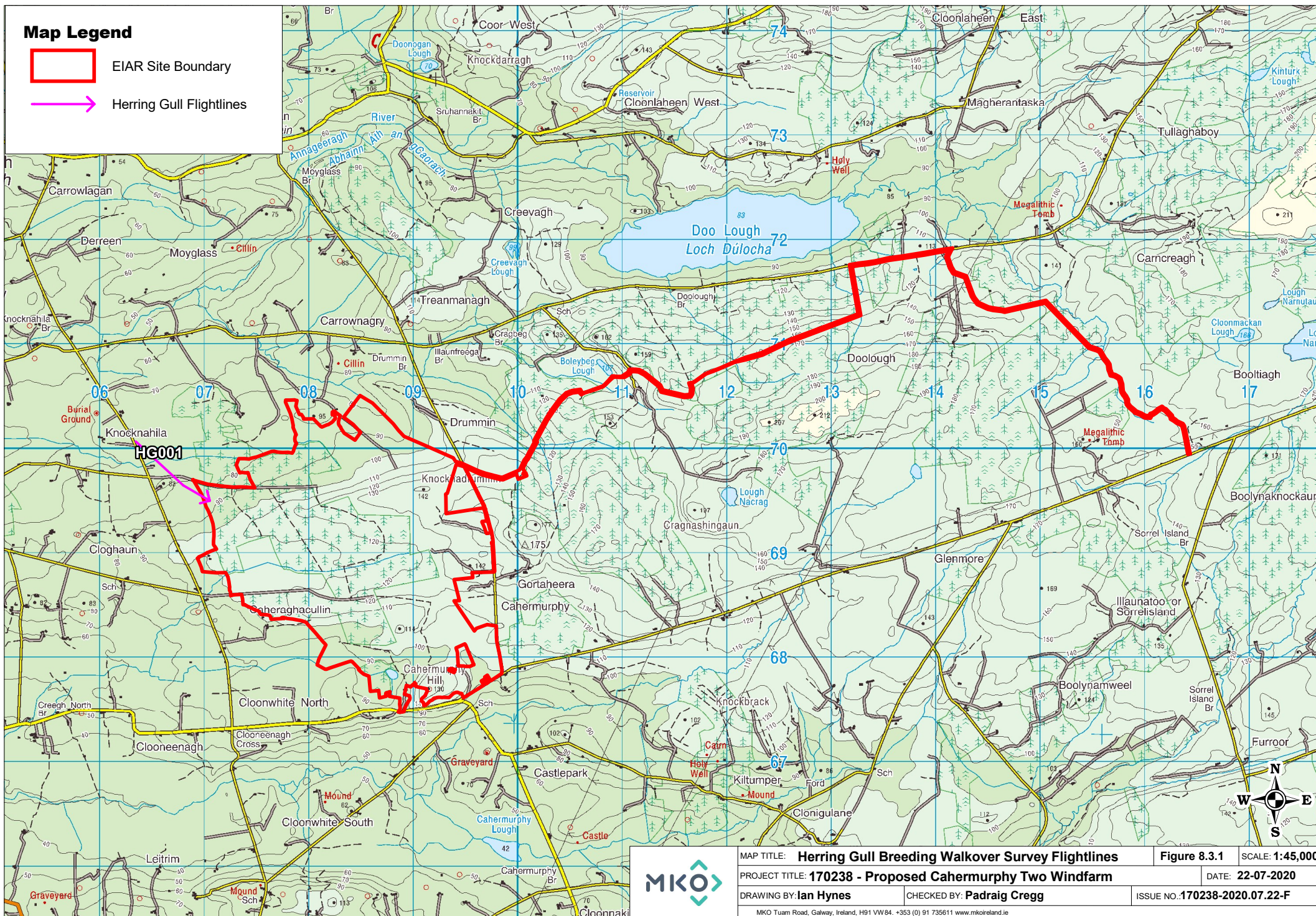
DATE: **22-07-2020**

DRAWING BY: **Ian Hynes**

CHECKED BY: **Padraig Cregg**

ISSUE NO.: **170238-2020.07.22-F**

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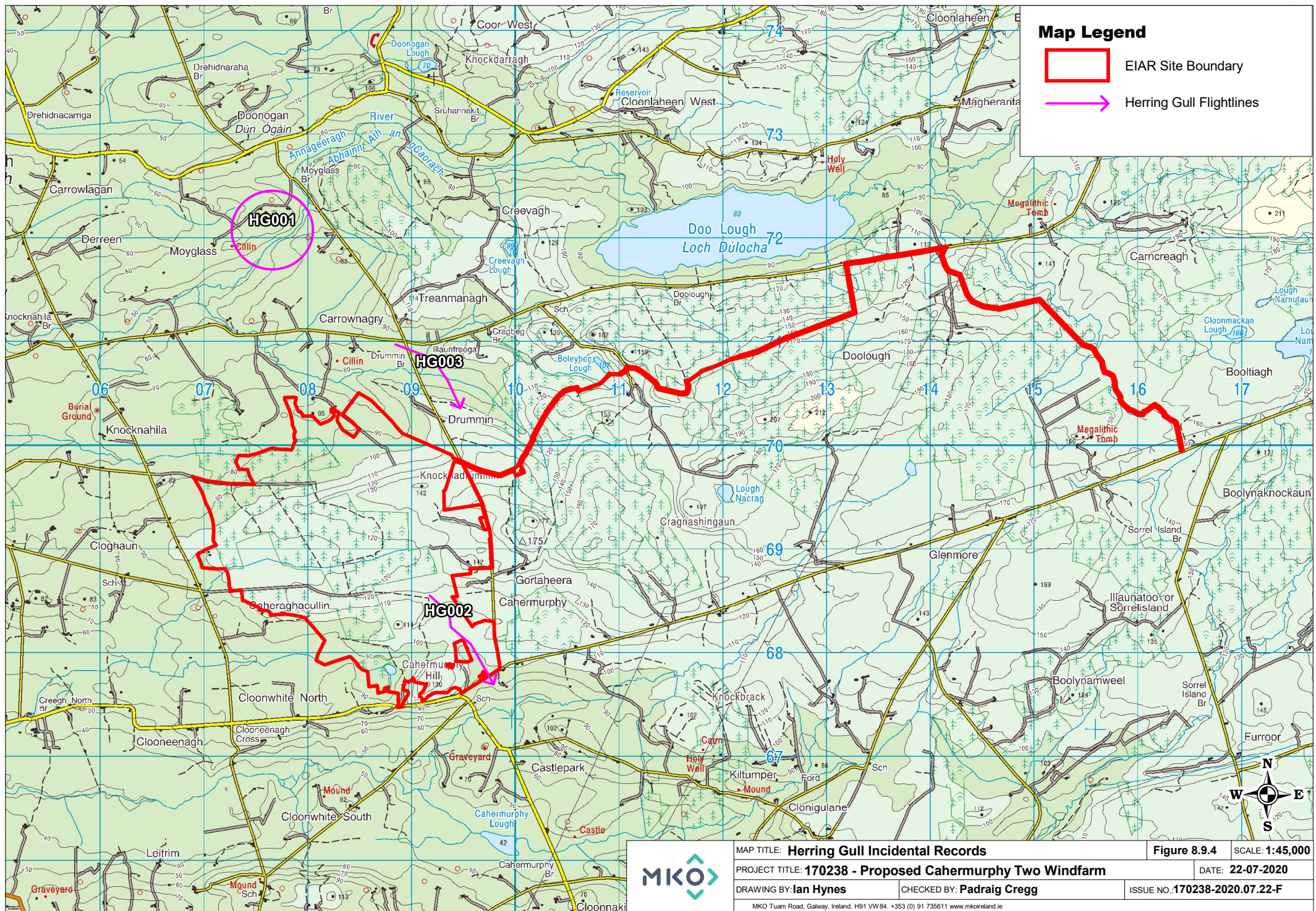


Table 1-20 Lapwing Winter Transect Survey Data

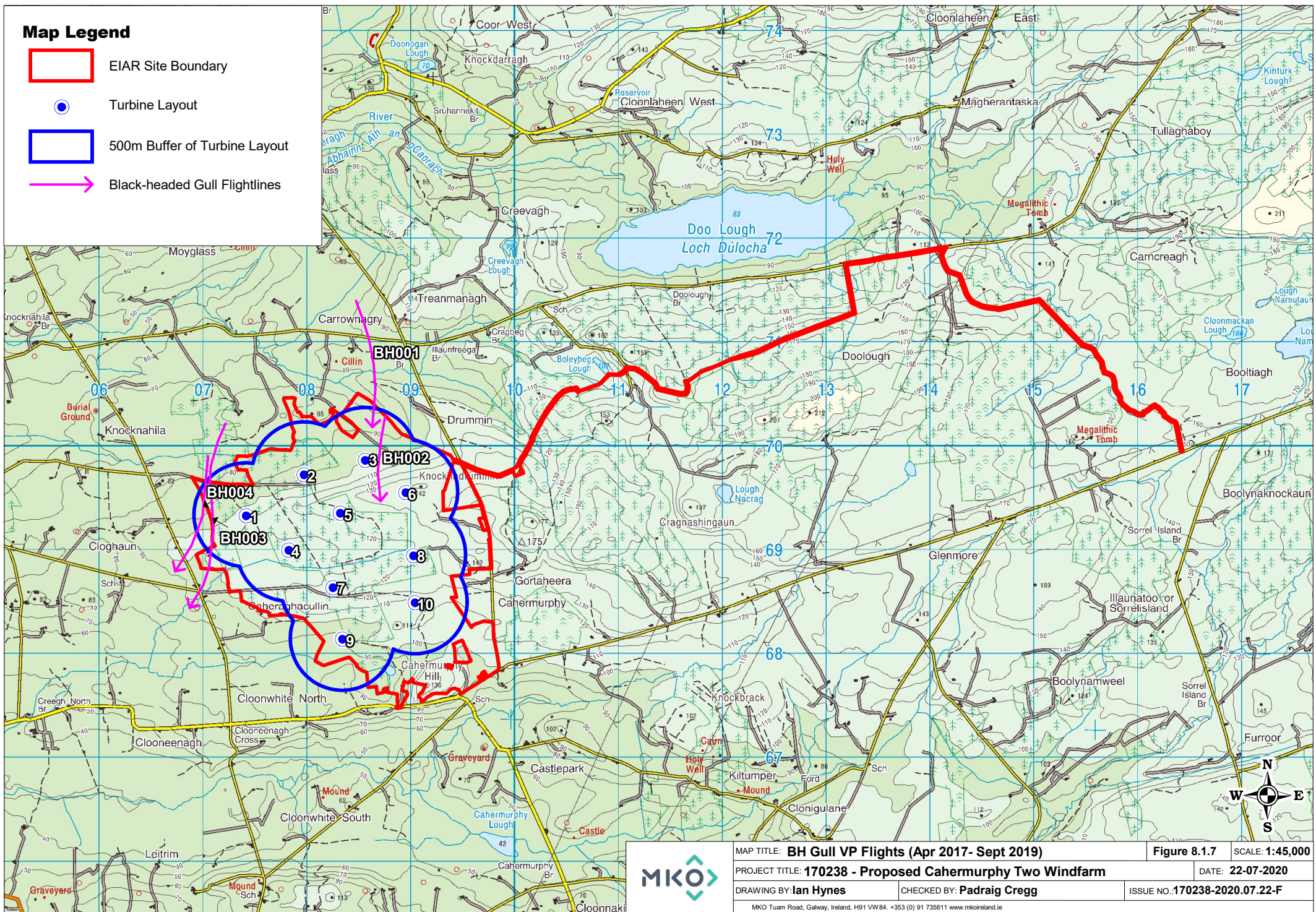
Map Ref. No.	Survey Date	Trans No.	Time of observation	Species	Target Species	Number of birds	Sex/age	Habitat	Activity	Habitat and Activity	Comments	Surveyor
L001	02/10/2018			Lapwing	Y	3	Flying over	PB3	travelling in band 3			JK

Table 1-21 Black-headed Gull Vantage Point Survey Data

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
BH001	03/09/2019	VP1	Black-headed Gull	18	08:37:00	42		42			GA1, (Improved agricultural grassland) Travelling		JK
BH002	03/09/2019	VP1	Black-headed Gull	7	10:21:00	63		63			GA1, (Improved agricultural grassland) Travelling		JK
BH003	04/09/2019	VP04	Black-headed Gull	9	07:54:00	28		28			PB4, (Cutover bog) WD4, (Conifer plantation) Travelling		JK
BH004	04/09/2019	VP04	Black-headed Gull	5	10:22:00	44		44			PB4, (Cutover bog) WD4, (Conifer plantation) Travelling		JK

Map Legend

-  EIAR Site Boundary
-  Turbine Layout
-  500m Buffer of Turbine Layout
-  Black-headed Gull Flightlines



MAP TITLE: **BH Gull VP Flights (Apr 2017- Sept 2019)**

Figure 8.1.7

SCALE: 1:45,000

PROJECT TITLE: **170238 - Proposed Cahermurphy Two Windfarm**

DATE: **22-07-2020**

DRAWING BY: **Ian Hynes**

CHECKED BY: **Padraig Cregg**

ISSUE NO.: **170238-2020.07.22-F**

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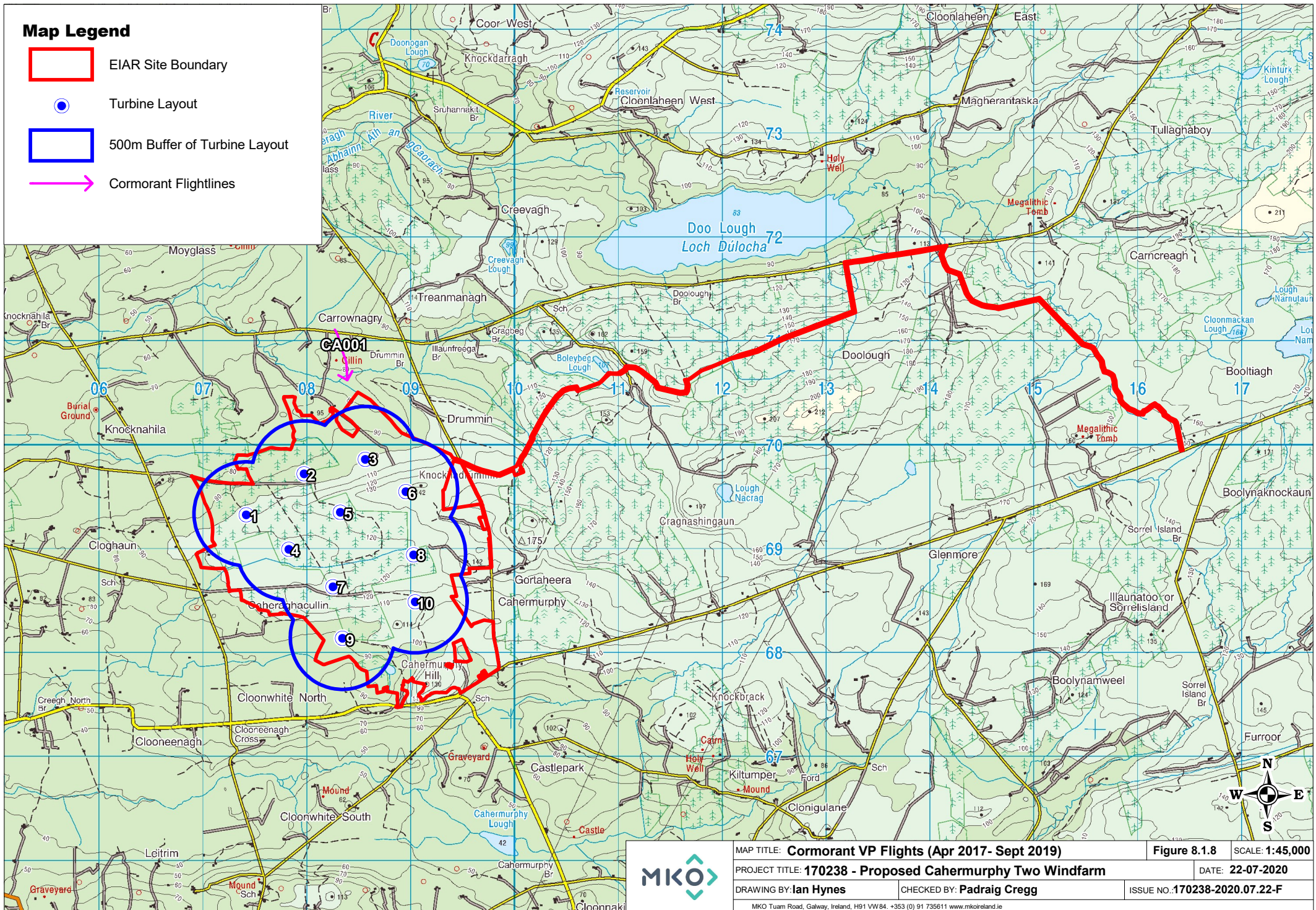
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Table 1-22 Cormorant Vantage Point Survey Data

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
CA001	02/08/2017	VP1	Cormorant	1	05:56:00	38	0	38	0	0	GA1, (Improved agricultural grassland) Travelling		JH

Map Legend

-  EIAR Site Boundary
-  Turbine Layout
-  500m Buffer of Turbine Layout
-  Cormorant Flightlines



MAP TITLE: **Cormorant VP Flights (Apr 2017- Sept 2019)**

Figure 8.1.8

SCALE: 1:45,000

PROJECT TITLE: **170238 - Proposed Cahermurphy Two Windfarm**

DATE: **22-07-2020**

DRAWING BY: **Ian Hynes**

CHECKED BY: **Padraig Cregg**

ISSUE NO.: **170238-2020.07.22-F**

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Table 1-23 Woodcock Survey Data (Breeding Woodcock Surveys)

Map Reference No.	Date	Transect/VP/Area	Species Name	Target Spp (N/Y)	No. of Birds	Time of flight	Duration of flight (s)	Habitat	Comments	Surveyor
WK001	27/06/2018	Cahermurphy West	Woodcock	Y	2	21:00	20	Grassland and marsh, Wet Grassland, Cut Over Bog, Peatlands	Heard Woodcock on and off GPS roughly 52.783142, - 9.349011	AM

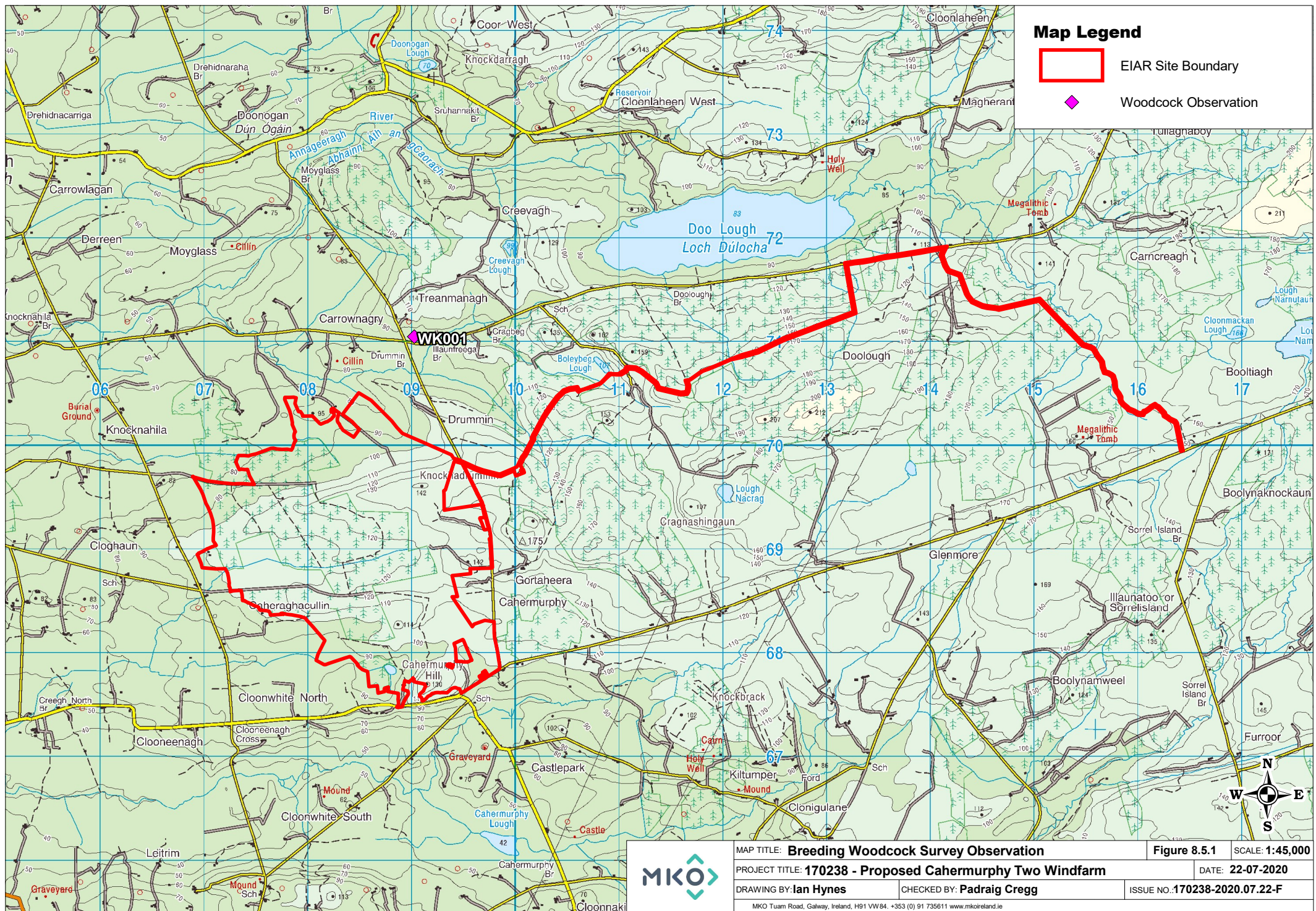


Table 1-24 Tufted Duck Incidental Records

Ref No.	Date	Survey Type	Location	Species	Number of Individuals	Notes	Surveyor
TU001	15/01/2019	HHVP	3	Tufted Duck	10	Doo lough	JK

Table 1-25 Buzzard Vantage Point Survey Data

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
BZ001	22/05/2018	VP04	Buzzard	1	16:05:00	47		47			PB4, (Cutover bog) WD4, (Conifer plantation) Travelling	Adult Male	JK
BZ002	11/04/2019	VP1	Buzzard	1	18:37:00	248			248		WD4, (Conifer plantation) PB2, (Upland blanket bog) Soaring	Buzzard soaring.	TK
BZ003	19/05/2019	VP04	Buzzard	1	11:06:00	34	14	20			PB2, (Upland blanket bog) GS4, (Wet grassland) WD4, (Conifer plantation) In flight	Buzzard seen in flight being mobbed by 2 Hooded Crows	TK
BZ004	12/06/2019	VP04	Buzzard	1	13:26:00	20	20				PB2, (Upland blanket bog) WD4, (Conifer plantation) In flight.	Buzzard seen in flight	TK

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
BZ005	12/06/2019	VP04	Buzzard	2	14:38:00	274		24	250		PB2, (Upland blanket bog) WD4, (Conifer plantation) Soaring	Pair of Buzzards soaring over area of woodland. Possible nest site in this area.	TK
BZ006	12/06/2019	VP04	Buzzard	1	17:23:00	25	25				PB2, (Upland blanket bog) WD4, (Conifer plantation) In flight.	Buzzard seen in flight.	TK
BZ007	14/07/2019	VP3	Buzzard	1	12:55:00	396			396		PB2, (Upland blanket bog) WD4, (Conifer plantation) Soaring	Buzzard soaring high over site	TK
BZ008	14/07/2019	VP3	Buzzard	1	15:25:00	525			525		PB2, (Upland blanket bog) WD4, (Conifer plantation) Soaring	Buzzard soaring high over site	TK

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
BZ009	05/08/2019	VP04	Buzzard	2	16:33:00	52	52				PB2, (Upland blanket bog) WD4, (Conifer plantation) In flight	Pair of Buzzards seen in flight from one patch of coniferous forest, across open bog to another patch of woodland.	TK

Table 1-26 Buzzard Breeding Raptor Survey Data

Map Ref. No.	Date	RVP	Species Name	No. of Birds	Time of flight	Duration of flight (s)	Habitat	Activity	Notes on habitat and activity	Comments	Surveyor
BZ001	21/06/2019	RVP4	Buzzard	1	14:26:00	246	PB2, (Upland blanket bog) WD4, (Conifer plantation)	Soaring	PB2, (Upland blanket bog) WD4, (Conifer plantation) Soaring	Buzzard seen soaring 50-100m high over site.	TK

Table 1-27 Buzzard Breeding Walkover Transect Data

Map Ref. No.	Survey Date	Trans No.	Time of observation	Species	Target Species	Number of birds	Habitat	Activity	Comments	Surveyor
BZ001	18/04/2019		14:25:00	Buzzard	Y	1	PB4, (Cutover bog) WD4, (Conifer plantation)	Travel + Perching		JK
BZ002	08/06/2019	2		Buzzard	Y	1	CONIFER AND BOG	Perched in tree		TK

Table 1-28 Buzzard Winter Walkover Transect Data

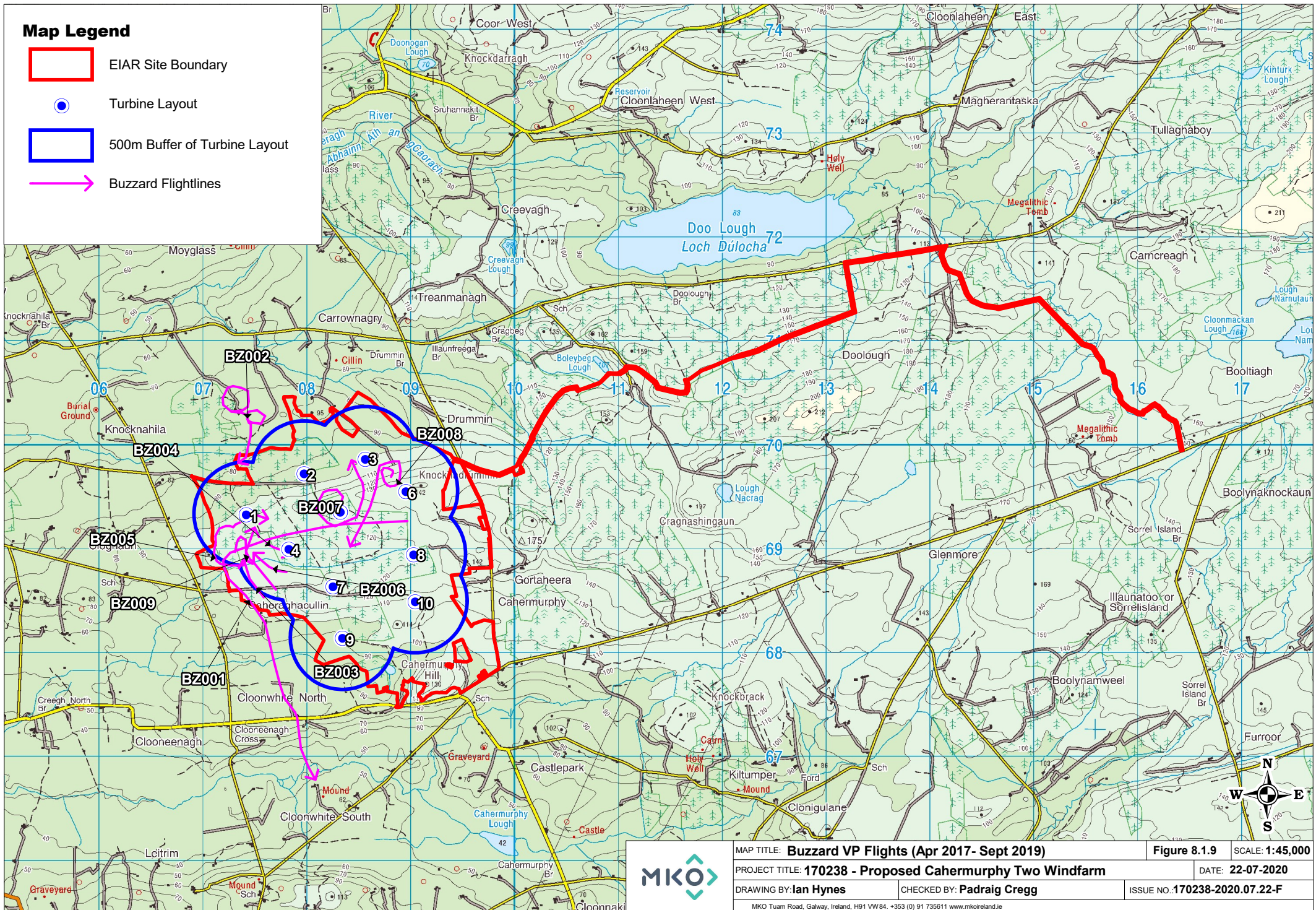
Map Ref. No.	Survey Date	Trans No.	Time of observation	Species	Target Species	Number of birds	Sex/age	Habitat	Activity	Habitat and Activity	Comments	Surveyor
BZ001	04/03/2019		14:50:00	Buzzard	Y	1	Male		Travelling		Circling/perched	JK

Table 1-29 Buzzard Incidental Records

Ref No.	Date	Survey Type	Location	Species	Number of Individuals	Notes	Surveyor
BZ001	30/03/2019	HHVP	HHVP 4	Buzzard	2	soaring	TK

Map Legend

-  EIAR Site Boundary
-  Turbine Layout
-  500m Buffer of Turbine Layout
-  Buzzard Flightlines



MAP TITLE: **Buzzard VP Flights (Apr 2017 - Sept 2019)**

Figure 8.1.9

SCALE: 1:45,000

PROJECT TITLE: **170238 - Proposed Cahermurphy Two Windfarm**

DATE: **22-07-2020**

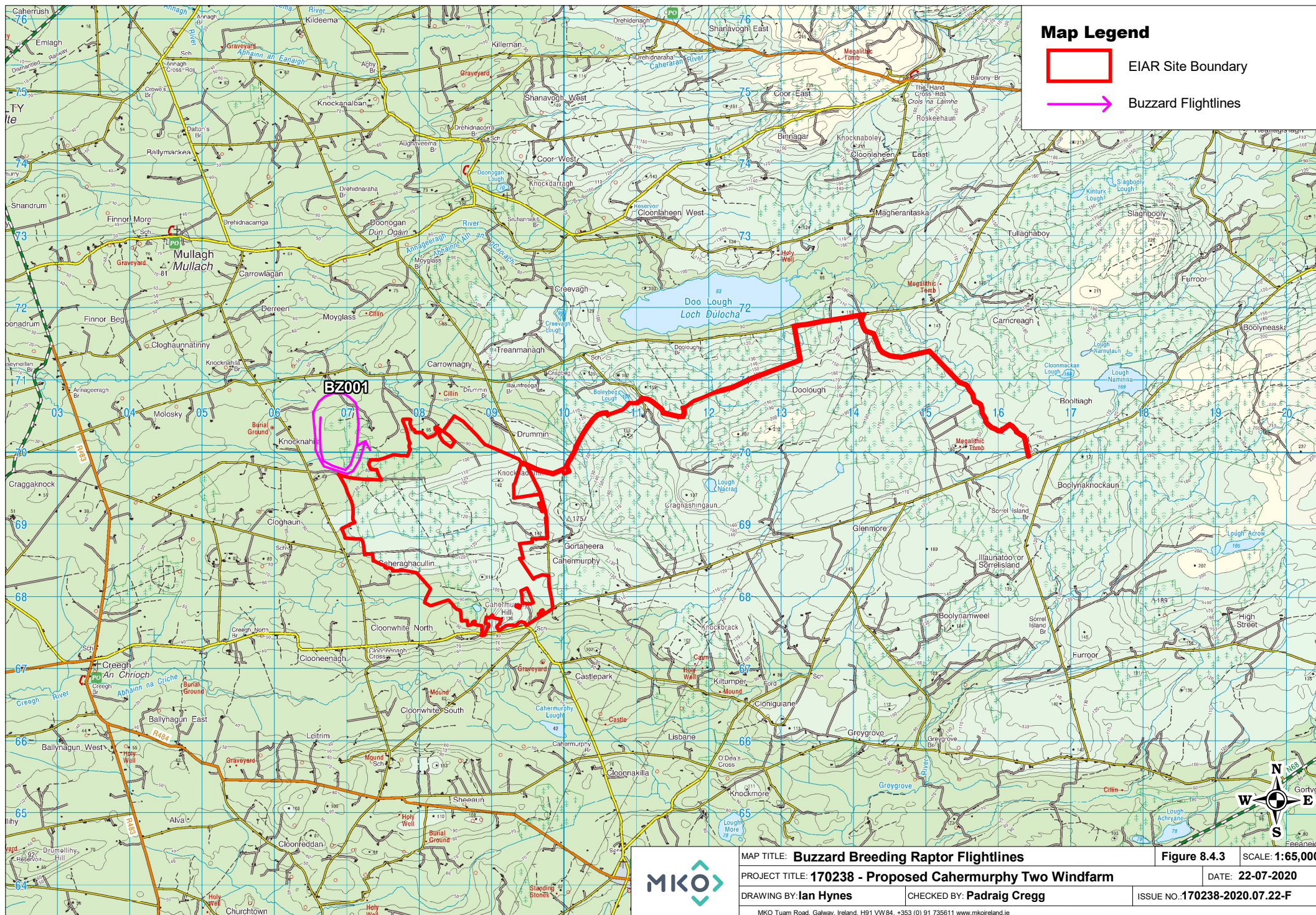
DRAWING BY: **Ian Hynes**

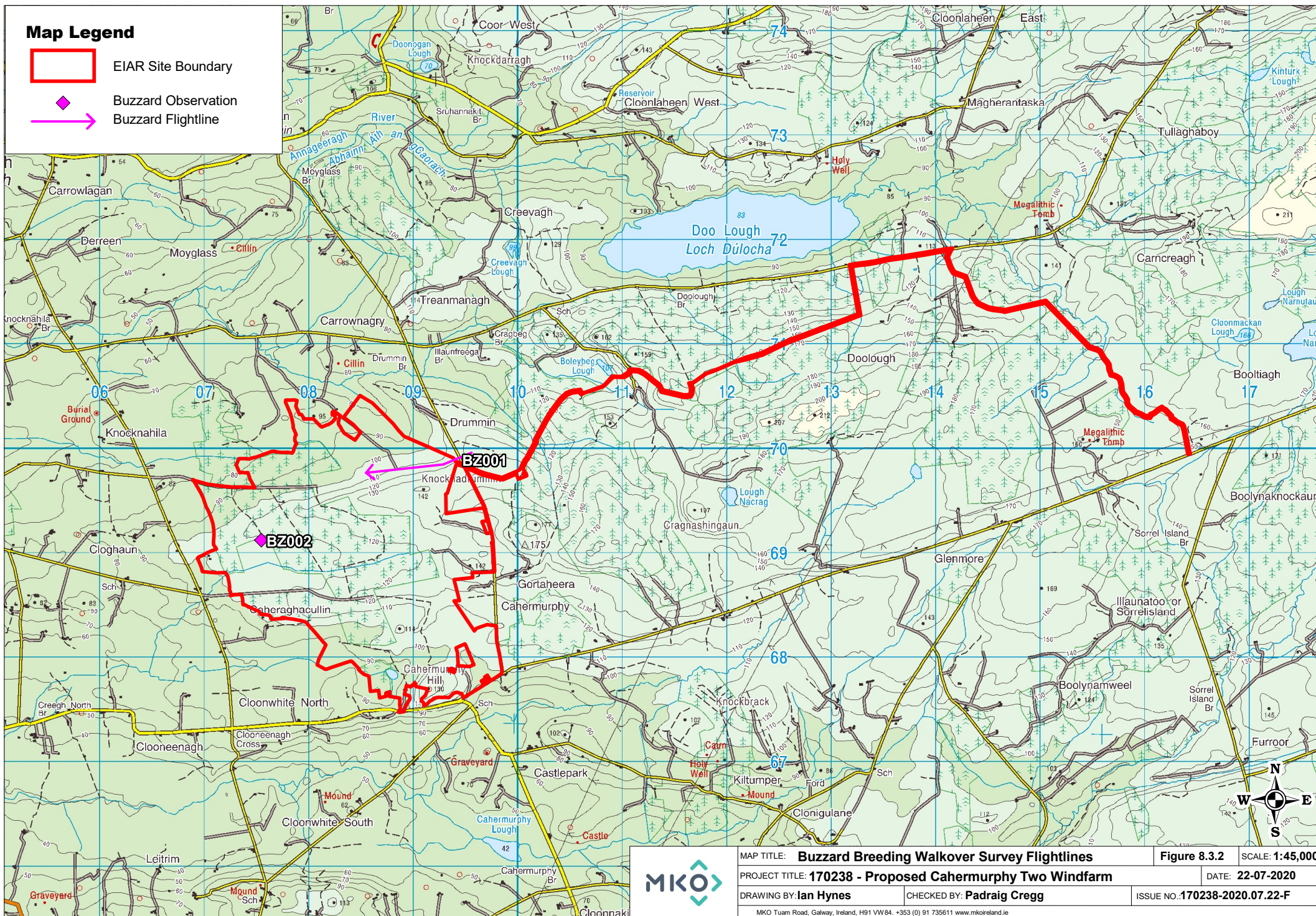
CHECKED BY: **Padraig Cregg**

ISSUE NO.: **170238-2020.07.22-F**

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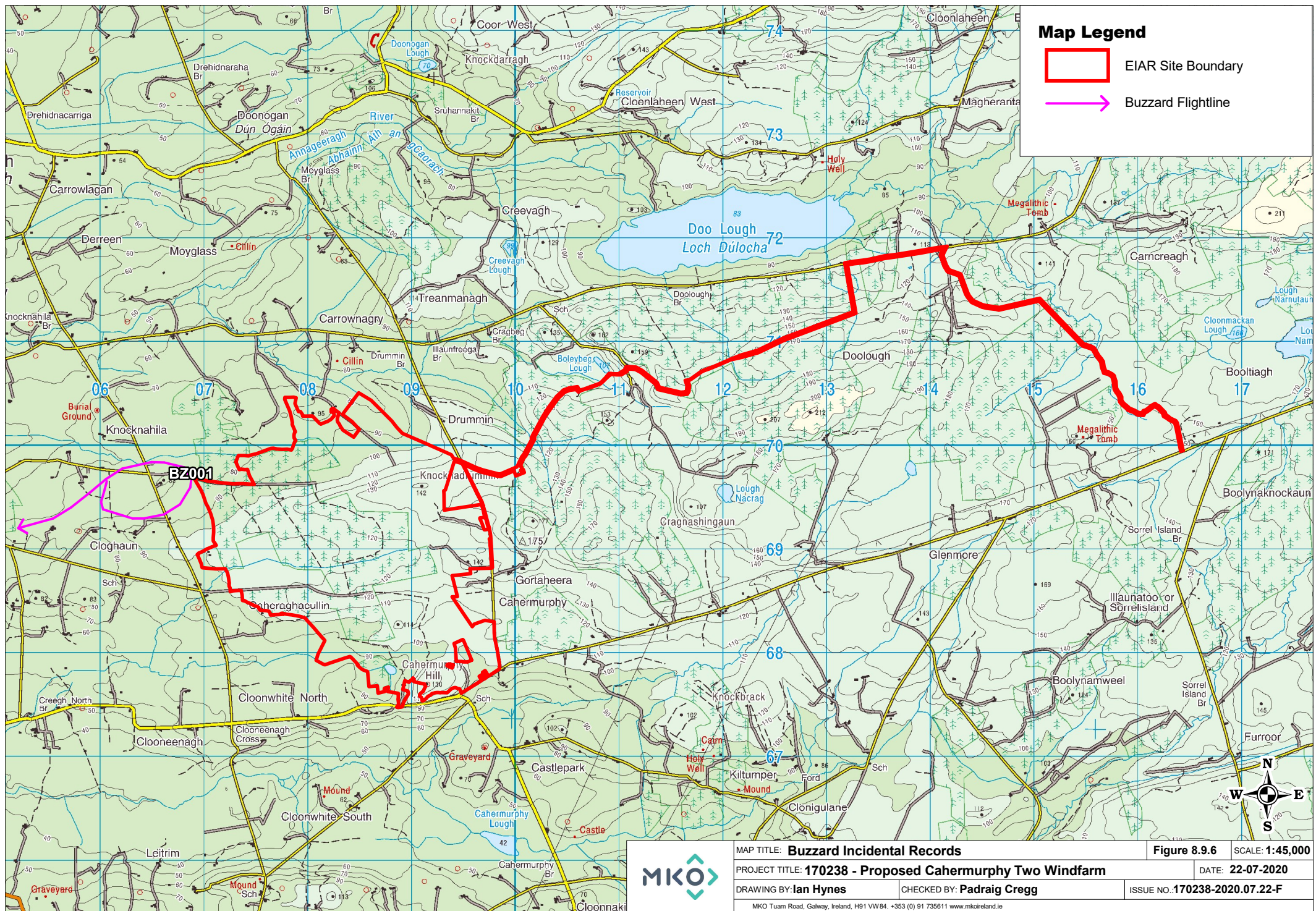


Table 1-30 Sparrowhawk Vantage Point Survey Data

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
SH001	03/05/2017	VP1	Sparrowhawk	1	21:14:00	25	25				Hunting		JK
SH002	06/06/2017	VP1	Sparrowhawk	1	11:05:00	68	68				Hunting		JK
SH003	08/06/2017	VP3	Sparrowhawk	1	12:40:00	30	30				GS4, (Wet grassland) WD4, (Conifer plantation) Hunting		JK
SH004	25/07/2017	VP2	Sparrowhawk	1	10:50:00	75	75				GA1, (Improved agricultural grassland) Hunting		JK
SH005	07/09/2017	VP3	Sparrowhawk	1	18:54:00	15	15				WD4, (Conifer plantation) Hunting		PM
SH006	08/09/2017	VP2	Sparrowhawk	1	16:33:00	23	23				GA1, (Improved agricultural grassland) Hunting		PM
SH007	17/04/2018	VP3	Sparrowhawk	1	09:20:00	7		7			WD4, (Conifer plantation) Flying through		CMc

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
SH008	13/05/2018	VP1	Sparrowhawk	1	19:42:00	"20"	"20"				GA1, (Improved agricultural grassland) WD4, (Conifer plantation) Flying	Adult Female observed in flight being mobbed by Swallows.	TK
SH009	26/06/2018	VP2	Sparrowhawk	1	11:12:00	"150"					PB2, (Upland blanket bog) WD4, (Conifer plantation) Soaring	Female Sparrowhawk observed soaring high above site	TK
SH0010	05/07/2018	VP04	Sparrowhawk	1	16:20:00	36		36			PB4, (Cutover bog) WD4, (Conifer plantation) Hunting		JK
SH0011	31/07/2018	VP2	Sparrowhawk	1	14:10:00	"20"	"20"				WD4, (Conifer plantation) Hunting flight	Sparrowhawk observed in flight, low to ground along forestry plantation.	TK
SH0012	29/08/2018	VP2	Sparrowhawk	1	13:26:00	5	0	0	5	0	GA1, (Improved agricultural grassland) Flying		CMc
SH0013	20/11/2018	VP2	Sparrowhawk	1	13:11:00	"10"	10				In flight	Female	TK

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
SH0014	03/01/2019	VP04	Sparrowhawk	1	11:24:00	6					GA1, (Improved agricultural grassland)	low hunting flight. Perched - male	JK
SH0015	03/01/2019	VP04	Sparrowhawk	1	11:25:00	4					GA1, (Improved agricultural grassland) Same Bird	low hunting flight. Perched - male	JK
SH0016	06/03/2019	VP04	Sparrowhawk	1	13:14:00	25	25				PB2, (Upland blanket bog) WD4, (Conifer plantation) In flight	Female	TK
SH0017	13/04/2019	VP04	Sparrowhawk	1	14:48:00	25	25				In flight		TK
SH0018	01/07/2019	VP1	Sparrowhawk	1	09:51:00	25	25				GA1, (Improved agricultural grassland) Hunting	Male Sparrowhawk seen in pursuit of Blackbird,	TK

Table 1-31 Sparrowhawk Breeding Raptor Survey Data

Map Ref. No.	Date	RVP	Species Name	No. of Birds	Time of flight	Duration of flight (s)	Habitat	Activity	Notes on habitat and activity	Comments	Surveyor
SH001	13/04/2017		Sparrowhawk	1	10:35:00	42	WD4, (Conifer plantation)	Male gliding over conifer plantation on eastern side of buffer.	WD4, (Conifer plantation) Male gliding over conifer plantation on eastern side of buffer.	WD4, (Conifer plantation) Male gliding over conifer plantation on eastern side of buffer.	JK
SH002	18/04/2017		Sparrowhawk	1	12:40:00	33	GA1, (Improved agricultural grassland)	Male being mobbed by two HC. Bird was observed soaring over GA1 with good WL1 cover. Bird recorded approximately 1KM from sighting of SH on the 13th. May be the same bird	GA1, (Improved agricultural grassland)	Male being mobbed by two HC. Bird was observed soaring over GA1 with good WL1 cover. Bird recorded approximately 1KM from sighting of SH on the 13th. May be the same bird	JK
SH003	10/05/2017		Sparrowhawk	1	13:35:00					Soaring	JK
SH004	10/05/2017		Sparrowhawk	1	14:50:00					Soaring	JK
SH005	11/05/2017		Sparrowhawk	1	11:38:00					Band 2 on west side of boundary. Travelling over site	JK
SH006	14/06/2017		Sparrowhawk	1	10:17:00	34				Male hunting on the east side	JK
SH007	21/06/2017		Sparrowhawk	1	10:05:00	44				Northside, hunting	JK

Map Ref. No.	Date	RVP	Species Name	No. of Birds	Time of flight	Duration of flight (s)	Habitat	Activity	Notes on habitat and activity	Comments	Surveyor
SH008	21/06/2017		Sparrowhawk	1	11:50:00	37				mear VP3 hunting	JK
SH009	27/06/2017		Sparrowhawk	1	12:55:00	38		male		Hunting	JK
SH0010	27/06/2017		Sparrowhawk	1	15:20:00	26		female		Hunting	JK
SH0011	10/07/2017		Sparrowhawk	1	12:33:00	33		female		Hunting near VP3	JK
SH0012	18/07/2017		Sparrowhawk	1	11:44:00	33		Female		hunting on southside	JK
SH0013	18/05/2018	Area 2 HHVP1	Sparrowhawk	1	14:18:00	"120"	PB2, (Upland blanket bog) WD4, (Conifer plantation)	Soaring	PB2, (Upland blanket bog) WD4, (Conifer plantation) Soaring	Sparrowhawk seen soaring over forestry before disappearing from view.	TK
SH0014	18/06/2019	RVP 3	Sparrowhawk	2	15:08:00	15	PB2, (Upland blanket bog) WD4, (Conifer plantation)	In flight/ hunting	PB2, (Upland blanket bog) WD4, (Conifer plantation) In flight/ hunting	Sparrowhawk seen briefly in low level flight into scrub.	TK

Table 1-32 Sparrowhawk Breeding Walkover Transect Data

Map Ref. No.	Survey Date	Trans No.	Time of observation	Species	Target Species	Number of birds	Habitat	Activity	Comments	Surveyor
SH001	14/07/2017			Sparrowhawk	Y	1	PB2, (Upland blanket bog) WD4, (Conifer plantation) GA1, (Improved agricultural grassland)	hunting	hunting	JH
SH002	22/04/2018			Sparrowhawk	Y	1		Foraging	Foraging	TK
SH003	03/07/2018		18:22:00	Sparrowhawk	Y	1	WD4	PB4, (Cutover bog) GS4, (Wet grassland) WD4, (Conifer plantation)	female	JK
SH004	01/04/2019		10:33:00	Sparrowhawk	Y	1	PB4, (Cutover bog) WD4, (Conifer plantation)	Hunting	Hunting	JK
SH005	18/04/2019		12:09:00	Sparrowhawk	Y	2	PB4, (Cutover bog) WD4, (Conifer plantation)	Soaring	Soaring	JK
SH006	04/07/2019	4	11:38:00	Sparrowhawk	Y	1	Upland Blanket bog and Coniferous forestry	Male Sparrowhawk seen in flight low to ground from one patch of woodland to another.	Male Sparrowhawk seen in flight low to ground from one patch of woodland to another.	TK

Table 1-33 Sparrowhawk Winter Walkover Transect Survey Data

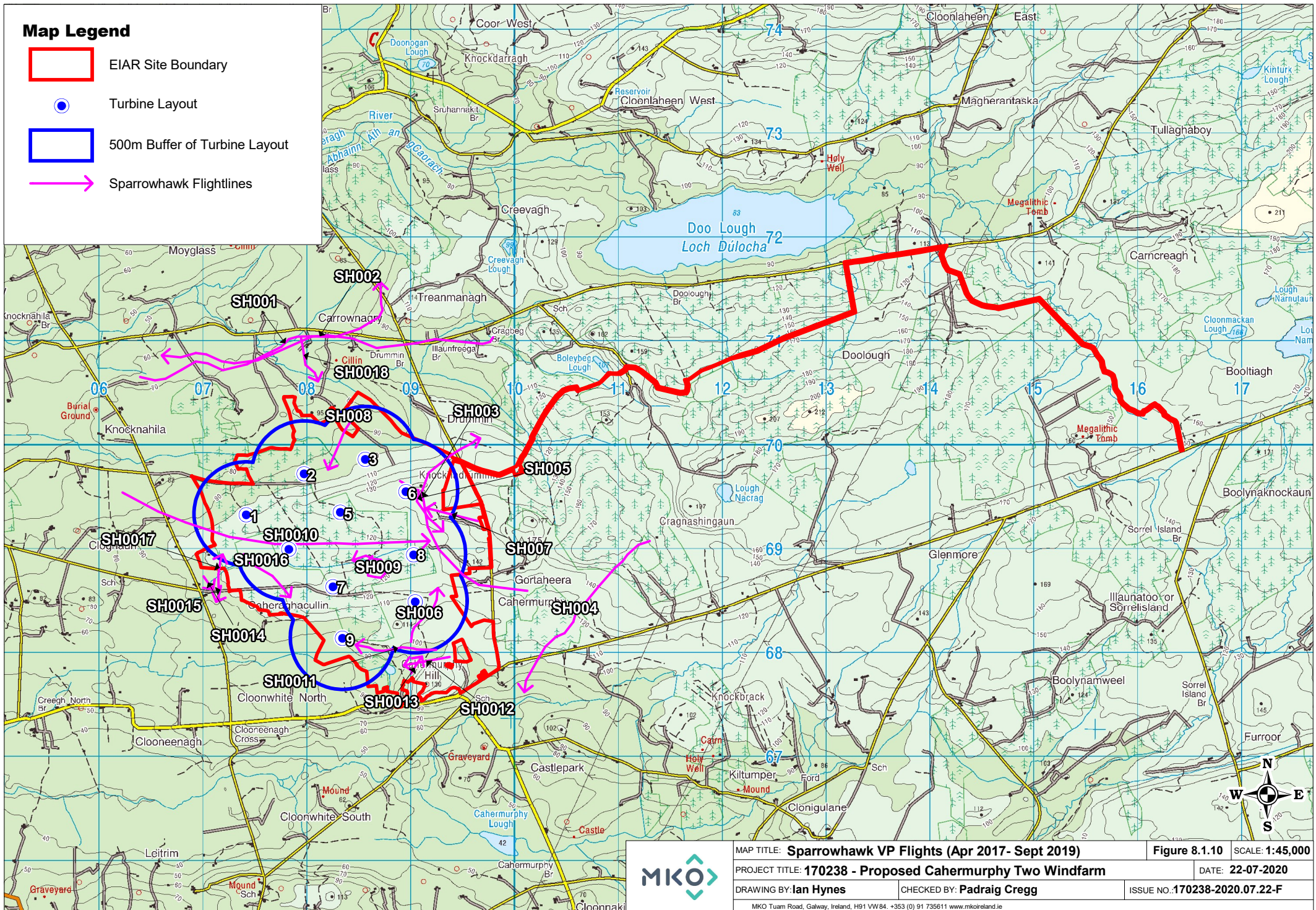
Map Ref. No.	Survey Date	Trans No.	Time of observation	Species	Target Species	Number of birds	Sex/age	Habitat	Activity	Habitat and Activity	Comments	Surveyor
SH001	05/10/2017		16:44:00	Sparrowhawk	Y	1		GS4, (Wet grassland) WD4, (Conifer plantation)	travelling in band 1			JK
SH002	05/10/2017		16:44:00	Sparrowhawk	Y	1		GS4, (Wet grassland) WD4, (Conifer plantation)	travelling in band 1		Female	JK
SH003	05/10/2017		16:44:00	Sparrowhawk	Y	1		GS4, (Wet grassland) WD4, (Conifer plantation)	travelling in band 1		male	JK
SH004	20/12/2017		16:22:00	Sparrowhawk	Y	1		PB4, (Cutover bog)	Travelling in band 1 @16:22		Travelling	JK

Table 1-34 Sparrowhawk Incidental Records

Ref No.	Date	Survey Type	Location	Species	Number of Individuals	Notes	Surveyor
SH001	21/03/2019	HHVP	10	Sparrowhawk	1	female hunting on site	Joe K

Map Legend

-  EIAR Site Boundary
-  Turbine Layout
-  500m Buffer of Turbine Layout
-  Sparrowhawk Flightlines



MAP TITLE: Sparrowhawk VP Flights (Apr 2017- Sept 2019)

Figure 8.1.10 SCALE: 1:45,000

PROJECT TITLE: 170238 - Proposed Cahermurphy Two Windfarm

DATE: 22-07-2020

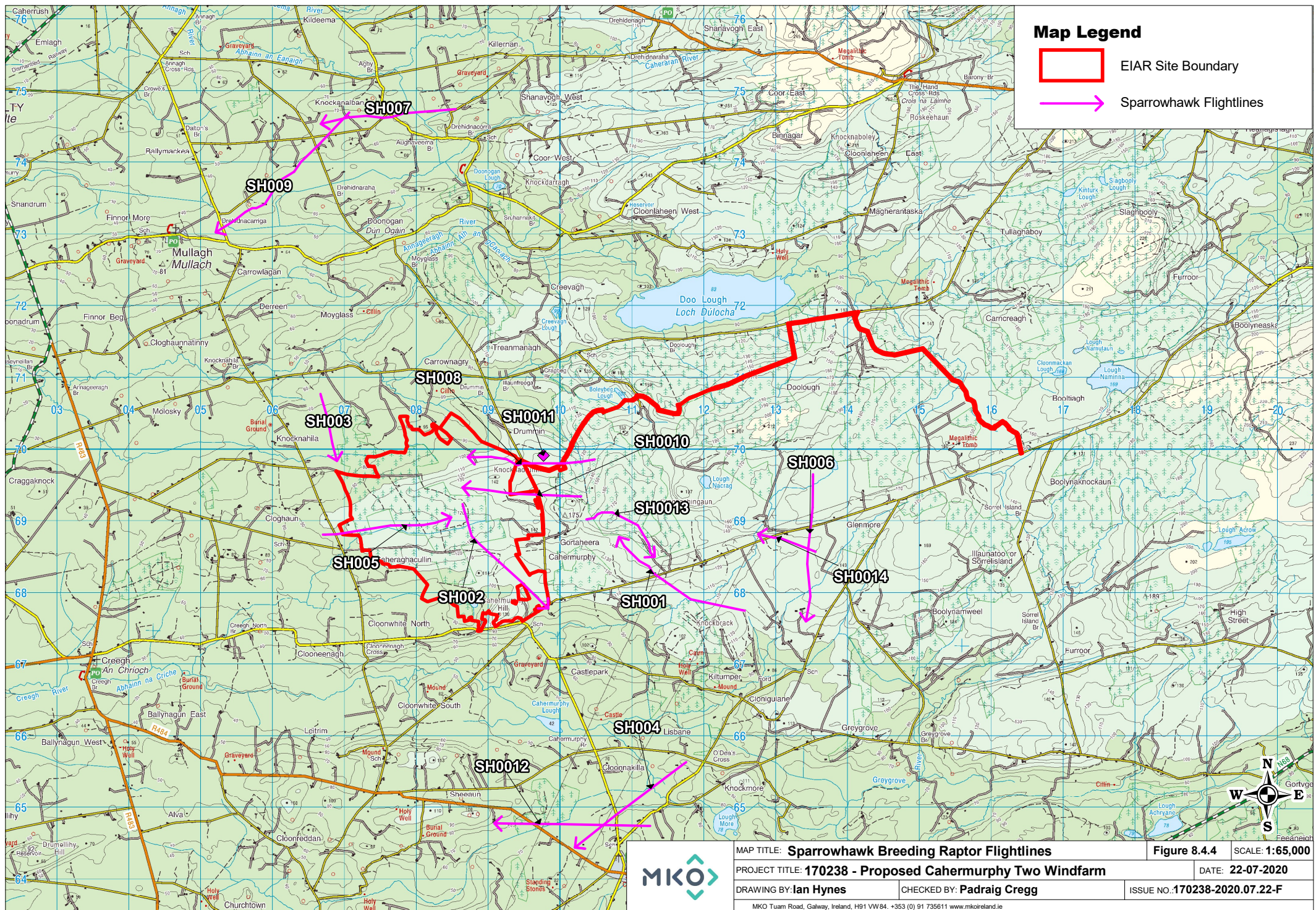
DRAWING BY: Ian Hynes

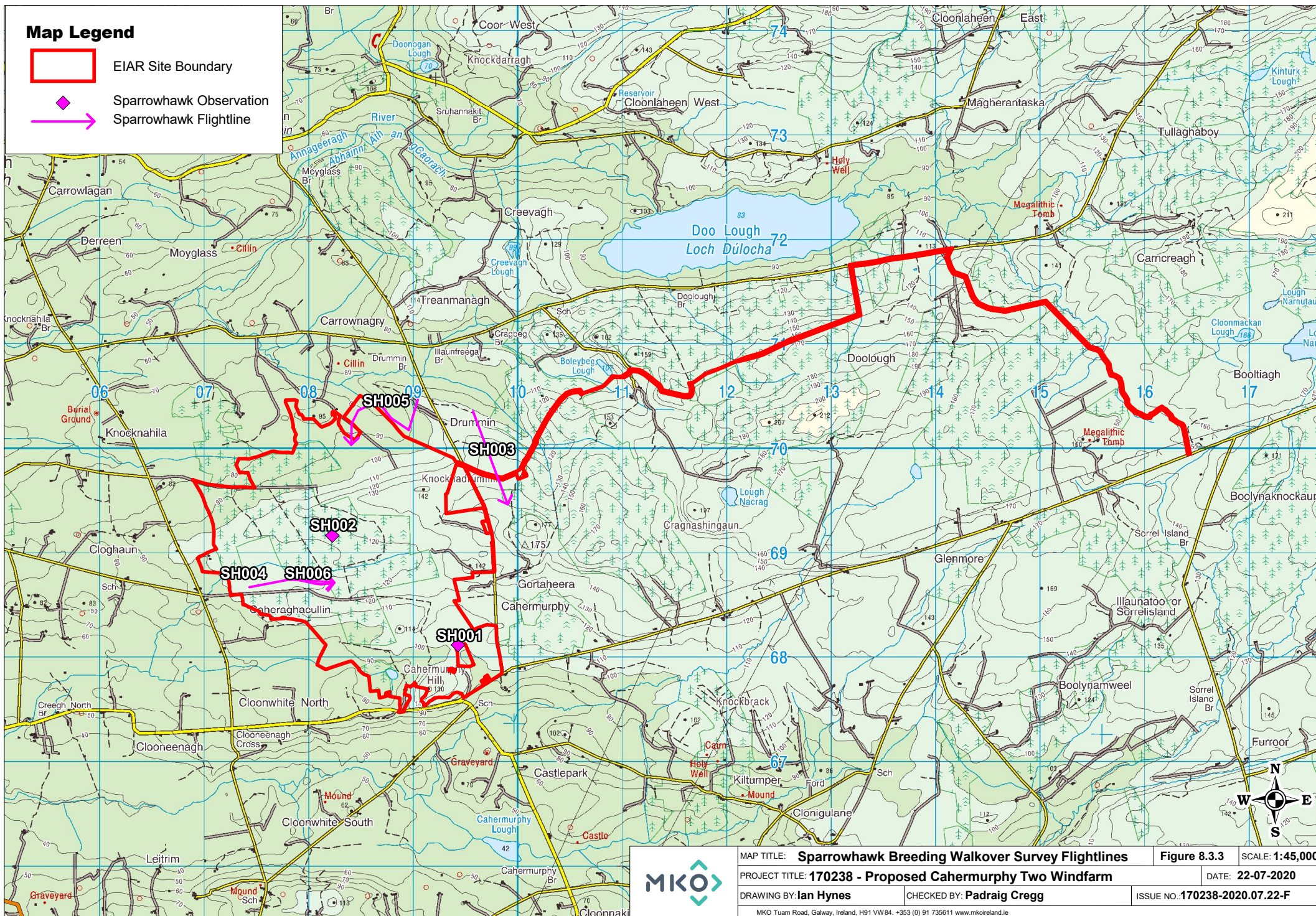
CHECKED BY: Padraig Cregg

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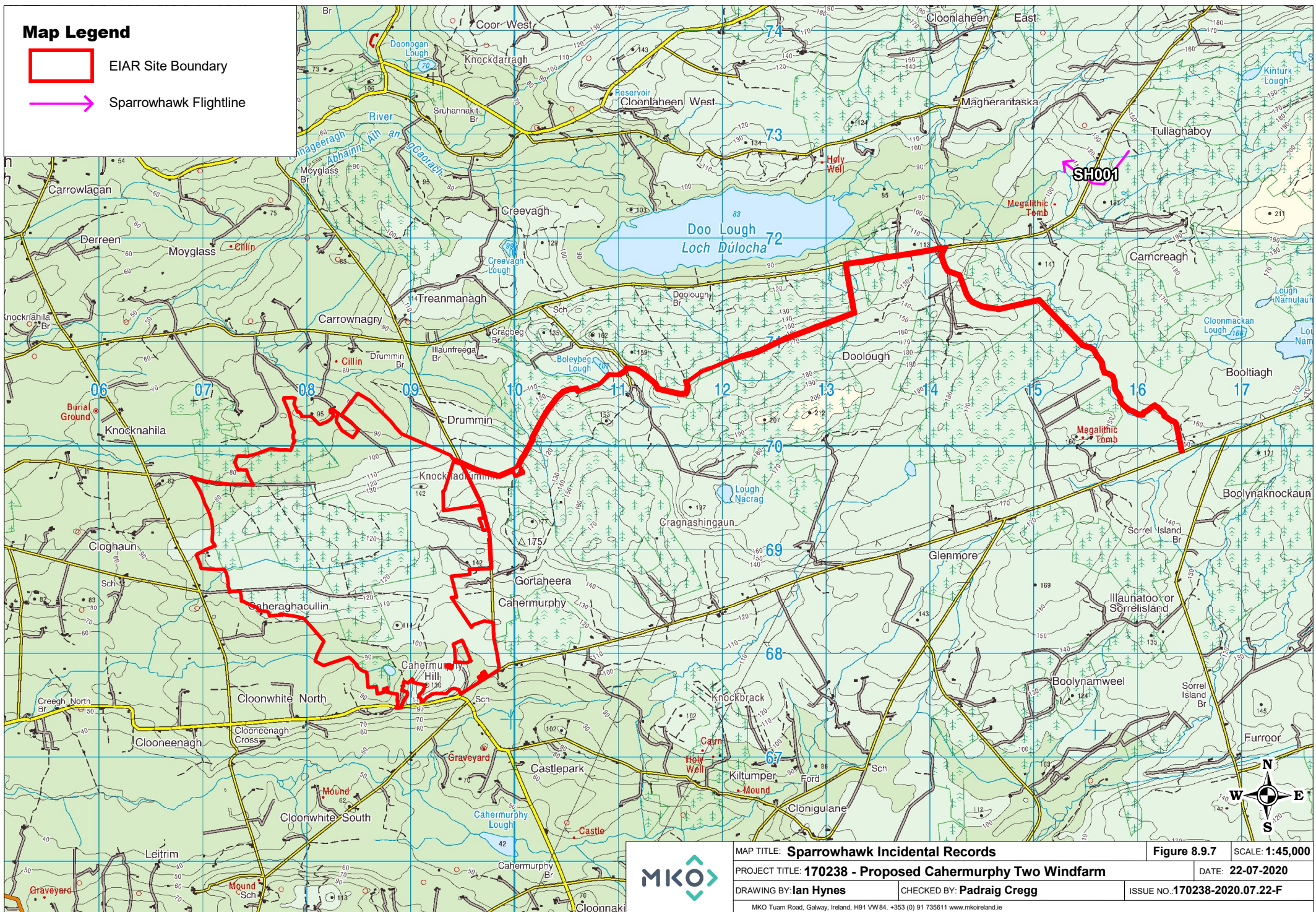
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Map Legend

-  EIAR Site Boundary
-  Sparrowhawk Flightline



MAP TITLE: Sparrowhawk Incidental Records		Figure 8.9.7	SCALE: 1:45,000
PROJECT TITLE: 170238 - Proposed Cahermurphy Two Windfarm			DATE: 22-07-2020
DRAWING BY: Ian Hynes	CHECKED BY: Padraig Cregg	ISSUE NO.: 170238-2020.07.22-F	
MKO Tuam Road, Galway, Ireland, H91 VW84. +353 (0) 91 735611 www.mkoireland.ie			

Table 1-35 Kestrel Vantage Point Survey Data

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
K001	07/07/2017	VP1	Kestrel	1	11:05:00	190		190			GA1, (Improved agricultural grassland) Hunting		JK
K002	19/07/2017	VP3	Kestrel	1	02:45:00	131		131			GS4, (Wet grassland) Hunting		JK
K003	02/08/2017	VP1	Kestrel	1	07:43:00	97	0	97	0	0	GA1, (Improved agricultural grassland) Hunting, hovering and flying on		JH
K004	03/08/2017	VP3	Kestrel	1	09:45:00	118	0	0	118	0	PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting, hovering and flying on	Male	JH
K005	03/08/2017	VP3	Kestrel	1	09:53:00	26	0	26	0	0	WD4, (Conifer plantation) Hunting, hovering and flying on		JH

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
K006	03/08/2017	VP3	Kestrel	1	11:22:00	144	0	144	0	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting, hovering and flying on	Male	JH
K007	06/09/2017	VP1	Kestrel	1	15:18:00	110		110			GA1, (Improved agricultural grassland) Hunting	Perched for 23minutes	PM
K008	06/09/2017	VP1	Kestrel	1	15:31:00	34	34				GA1, (Improved agricultural grassland) Travelling		PM
K009	06/09/2017	VP1	Kestrel	1	16:33:00	43			43		GA1, (Improved agricultural grassland) Hunting		PM
K0010	08/09/2017	VP2	Kestrel	1	18:15:00	121			121		GA1, (Improved agricultural grassland) Hunting		PM
K0011	08/09/2017	VP2	Kestrel	1	19:21:00	115			115		GA1, (Improved agricultural grassland) GS4, (Wet grassland) Hunting		PM

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
K0012	04/10/2017	VP3	Kestrel	1	07:55:00	83	45	38			GS4, (Wet grassland) Hunting	Female	JK
K0013	21/12/2017	VP2	Kestrel	1	10:45:00	180	30	150			GS4, (Wet grassland) WD4, (Conifer plantation) Hunting, hovering and dropping lower to ground before flying back up, flying on and hovering again.	Adult Female	TK
K0014	25/03/2018	VP2	Kestrel	1	14:05:00	350	5	5	340		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) Hunting, dropped at end of flight.	Male. Height mostly 40-125m	P.Troake
K0015	25/03/2018	VP2	Kestrel	1	15:49:00	140		10	130		GA1, (Improved agricultural grassland) Hunting, dropped	Male, height mostly c.100m	P.Troake

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
K0016	25/03/2018	VP2	Kestrel	1	15:53:00	410			350	60	GA1, (Improved agricultural grassland) Hunting	Height mostly 50-200m, highest in southernmost section of flight	P.Troake
K0017	25/03/2018	VP2	Kestrel	1	16:12:00	560	10	15	535		GA1, (Improved agricultural grassland) WD4, (Conifer plantation) Hunting	Mostly 40-90m, dropped to ground briefly twice	P.Troake
K0018	25/03/2018	VP2	Kestrel	1	16:26:00	450		40	410		GA1, (Improved agricultural grassland) WD4, (Conifer plantation) Hunting	Descended at end of flight	P.Troake
K0019	31/03/2018	VP2	Kestrel	1	14:37:00	60		15	45		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	Height c.35m dropping to 10m; landed on spruce	P.Troake

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
K0020	31/03/2018	VP2	Kestrel	1	14:42:00	120		65	55		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)	Gaining height, up to c.60 metres; same bird as obs.no.1	P.Troake
K0021	31/03/2018	VP2	Kestrel	1	14:43:00	25			25		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)	Height 30-40m, following first bird	P.Troake
K0022	31/03/2018	VP2	Kestrel	1	15:11:00	100		75	25		WD4, (Conifer plantation) Hunting	Height 15-30m	P.Troake
K0023	31/03/2018	VP2	Kestrel	1	16:07:00	8		8			B, (Cultivated and built land) Hunting	Height 25m, dropped	P.Troake
K0024	31/03/2018	VP2	Kestrel	1	16:57:00	180			180		GA1, (Improved agricultural grassland) Hunting	Male; height 50-70m	P.Troake

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
K0025	16/04/2018	VP1	Kestrel	1	08:22:00	60			60		GA1, (Improved agricultural grassland) Hovering then mobbed by HC	Hovering then mobbed by HC	CMc
K0026	29/04/2018	VP04	Kestrel	1	08:12:00	"25"		"25"			PB2, (Upland blanket bog) WD4, (Conifer plantation) In flight	Male Kestrel observed in flight flying in a south easterly direction over site.	TK
K0027	12/05/2018	VP2	Kestrel	1	16:53:00	"180"	"40"	"120"			PB2, (Upland blanket bog) GA1, (Improved agricultural grassland) WD4, (Conifer plantation) Hunting	Male Kestrel observed hunting, hovering. Landed on ground and flew off in westerly direction with prey in its talon, small mammal.	TK
K0028	13/05/2018	VP1	Kestrel	1	18:13:00	"30"		"30"			WD4, (Conifer plantation) GA1, (Improved agricultural grassland) In flight	Adult female observed in flight, flying in westerly direction.	TK

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
K0029	08/06/2018	VP1	Kestrel	1	14:33:00	"135"	"40"	"95"		"135"	GA1, (Improved agricultural grassland) WD4, (Conifer plantation) Hunting	Male Kestrel observed hunting, hovering and flying on	TK
K0030	08/06/2018	VP1	Kestrel	1	17:52:00	"250"	"160"	"90"			PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	Male Kestrel observed hunting, hovering and flying on	TK
K0031	30/06/2018	VP3	Kestrel	1	15:55:00	"160"	"80"	"40"			PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	Female Kestrel observed hunting, hovering and flying on	TK
K0032	25/07/2018	VP3	Kestrel	1	11:33:00	"120"	"40"	"80"			PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	Female Kestrel observed hunting, hovering, before flying off site.	TK
K0033	25/07/2018	VP3	Kestrel	1	17:40:00	"45"		"25"			PB2, (Upland blanket bog) WD4, (Conifer plantation) In flight	Female Kestrel observed in flight.	TK

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
K0034	26/07/2018	VP1	Kestrel	1	08:50:00	"45"		"45"			PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	Male Kestrel observed in flight and hovering briefly.	TK
K0035	08/08/2018	VP3	Kestrel	1	13:56:00	60	0	0	60	0	PB2, (Upland blanket bog) Hunting	Adult Female	CMc
K0036	03/10/2018	VP1	Kestrel	1	08:25:00	2100		2100			GA1, (Improved agricultural grassland) Flying and perched	Unknown	CMc
K0037	03/12/2018	VP1	Kestrel	1	13:48:00	150		150			Hunting	Female Kestrel observed hovering and flying on.	TK
K0038	12/12/2018	VP3	Kestrel	1	13:20:00	240	40	180	20		Hunting	Female	TK
K0039	12/12/2018	VP3	Kestrel	1	13:55:00	25			25		In flight	Female	TK
K0040	03/01/2019	VP04	Kestrel	1	11:29:00	13					GA1, (Improved agricultural grassland) Same Bird	hovering/hunting before lost from view behind conifers	JK
K0041	03/01/2019	VP04	Kestrel	1	11:43:00						GA1, (Improved agricultural grassland) Same Bird	hunting over and back and hovering	JK

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
K0042	03/01/2019	VP04	Kestrel	1	11:58:00	16					GA1, (Improved agricultural grassland) Same Bird	hunting. Dropped on prey and lost from view	JK
K0043	03/01/2019	VP04	Kestrel	1	12:16:00	600					GA1, (Improved agricultural grassland) Same Bird	hunting, partly within 500m site buffer	JK
K0044	03/01/2019	VP04	Kestrel	1	13:21:00	24					GA1, (Improved agricultural grassland) Same Bird	hunting	JK
K0045	03/01/2019	VP04	Kestrel	1	13:30:00	35					GA1, (Improved agricultural grassland) Same Bird	hunting	JK
K0046	03/01/2019	VP04	Kestrel	1	13:50:00	102					GA1, (Improved agricultural grassland) Same Bird	hunting	JK
K0047	03/01/2019	VP04	Kestrel	1	13:55:00	15					GA1, (Improved agricultural grassland) Same Bird	short flight	JK
K0048	03/01/2019	VP04	Kestrel	1	15:59:00	141					GA1, (Improved agricultural grassland) Same Bird	hunting	JK

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
K0049	06/01/2019	VP1	Kestrel	1	14:49:00	130		130			GA1, (Improved agricultural grassland) Hunting	Male Kestrel seen hunting, hovering and flying on.	TK
K0050	06/01/2019	VP1	Kestrel	1	15:11:00	150	20	130			GA1, (Improved agricultural grassland) Hunting	Male Kestrel seen hunting, hovering and flying on.	TK
K0051	31/01/2019	VP3	Kestrel	1	17:26:00	90	17	73			PB2, (Upland blanket bog) Hunting	Female Kestrel observed hunting, went to ground.	TK
K0052	31/01/2019	VP3	Kestrel	1	17:27:00	25	5	20			PB2, (Upland blanket bog) In flight.	Female Kestrel took off from ground with prey in talons, flew northwards and landed on exposed rock and started eating prey it had caught...small mammal.	TK
K0053	07/03/2019	VP2	Kestrel	1	09:16:00	142		142			Hunting	Male	JK
K0054	07/03/2019	VP2	Kestrel	1	10:05:00	68		68			Hunting	Male	JK
K0055	07/03/2019	VP2	Kestrel	1	11:40:00	53		53			Hunting	Male	JK
K0056	07/03/2019	VP2	Kestrel	1	12:07:00	74		74			Hunting	Male	JK

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
K0057	13/04/2019	VP04	Kestrel	1	15:27:00	165	25	140			WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting	Male Kestrel hunting, hovering and flying on	TK
K0058	13/04/2019	VP04	Kestrel	1	15:55:00	214		214			WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting	Male Kestrel hunting, hovering and flying on	TK
K0059	22/04/2019	VP3	Kestrel	1	16:19:00	96		96			WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting	Female Kestrel hunting, hovering and flying on	TK
K0060	22/04/2019	VP3	Kestrel	1	20:38:00	234		234			WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting	Male Kestrel hunting, hovering and flying on	TK
K0061	29/04/2019	VP2	Kestrel	1	15:35:00	35		35			PB2, (Upland blanket bog) In flight	Male Kestrel in flight over bog/rough grassland	TK
K0062	16/05/2019	VP2	Kestrel	1	07:40:00	67	32	35			GA1, (Improved agricultural grassland) WD4, (Conifer plantation) GS4, (Wet grassland) In flight	Male Kestrel seen perching on conifer treetop before flying on.	TK

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
K0063	17/05/2019	VP3	Kestrel	1	10:13:00	65		65			PB2, (Upland blanket bog) WD4, (Conifer plantation) GS4, (Wet grassland) In flight	Male Kestrel observed in flight.	TK
K0064	05/06/2019	VP1	Kestrel	1	14:42:00	48		48			WD4, (Conifer plantation) GS4, (Wet grassland) In flight, prey in talons	Male Kestrel seen in flight with prey in talons. Probable nest site at location marked on map.	TK
K0065	05/06/2019	VP1	Kestrel	1	14:46:00	52		52			PB2, (Upland blanket bog) WD4, (Conifer plantation) In flight.	Male Kestrel in flight	TK
K0066	05/06/2019	VP1	Kestrel	1	15:51:00	55		55			GS4, (Wet grassland) WD4, (Conifer plantation) In flight.	Female Kestrel in flight	TK
K0067	05/06/2019	VP1	Kestrel	1	18:12:00	38		38			GS4, (Wet grassland) WD4, (Conifer plantation) In flight.	Male Kestrel in flight	TK

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
K0068	17/06/2019	VP3	Kestrel	1	13:32:00	135	30	105			PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	Male Kestrel hunting.	TK
K0069	17/06/2019	VP3	Kestrel	1	15:26:00	30		30			PB2, (Upland blanket bog) WD4, (Conifer plantation) In flight.	Male Kestrel in flight..	TK
K0070	28/06/2019	VP2	Kestrel	1	20:02:00	80		80			PB2, (Upland blanket bog) GA1, (Improved agricultural grassland) WD4, (Conifer plantation) Hunting	Female Kestrel hunting, hovering and flying on.	TK
K0071	01/07/2019	VP1	Kestrel	1	11:28:00	112		112			GA1, (Improved agricultural grassland) Hunting	Male Kestrel hunting, hovering, and flying on	TK
K0072	01/07/2019	VP1	Kestrel	1	13:33:00	260	30	230			GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) Hunting	Male Kestrel hunting, hovering and flying on.	TK

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
K0073	02/07/2019	VP2	Kestrel	1	14:48:00	40		40			GA1, (Improved agricultural grassland) In flight	Female Kestrel seen in flight	TK
K0074	14/07/2019	VP3	Kestrel	1	14:10:00	112		112			PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	Male Kestrel in flight, hovering and flying on.	TK
K0075	02/08/2019	VP1	Kestrel	1	15:50:00	95	10	85			GA1, (Improved agricultural grassland) GS4, (Wet grassland) Hunting	Male Kestrel hunting, hovering and flying on.	TK
K0076	02/08/2019	VP1	Kestrel	1	17:23:00	145		145			GA1, (Improved agricultural grassland) GS4, (Wet grassland) Hunting	Male Kestrel hunting, hovering and flying on.	TK
K0077	02/08/2019	VP1	Kestrel	1	17:38:00	212		212			GA1, (Improved agricultural grassland) GS4, (Wet grassland) Hunting	Male Kestrel hunting, hovering and flying on.	TK

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
K0078	02/08/2019	VP1	Kestrel	1	21:10:00	168		168			GA1, (Improved agricultural grassland) GS4, (Wet grassland) Hunting	Female Kestrel hunting, hovering and flying on.	TK
K0079	05/08/2019	VP04	Kestrel	1	16:05:00	245	25	220			WD4, (Conifer plantation) Hunting	Female Kestrel hunting, hovering and flying on.	TK
K0080	28/08/2019	VP2	Kestrel	1	19:23:00	318	30	288			GA1, (Improved agricultural grassland) GS4, (Wet grassland) WD4, (Conifer plantation) Hunting	Male Kestrel hunting, hovering, went to ground twice....flying on.	TK
K0081	06/09/2019	VP3	Kestrel	1	09:54:00	67			67		PB2, (Upland blanket bog) Hovering/Hunting		JK
K0082	06/09/2019	VP3	Kestrel	1	10:19:00	38			38		PB2, (Upland blanket bog) Hovering/Hunting		JK

Table 1-36 Kestrel Breeding Raptor Surveys

Map Ref. No.	Date	RVP	Species Name	No. of Birds	Time of flight	Duration of flight (s)	Habitat	Activity	Notes on habitat and activity	Comments	Surveyor
K001	20/04/2017		Kestrel	1	11:21:00	88		Female	PB2: Hunting	Hunting over PB2	JK
K002	08/05/2017		Kestrel	1	12:25:00			male		Hunting	JK
K003	08/05/2017		Kestrel	1	02:05:00			male		hunting	JK
K004	12/05/2017		Kestrel	1	01:10:00					Hunting on west side of site in band 2	JK
K005	20/06/2017		Kestrel	1	10:35:00	82				Male hunting on westside	JK
K006	21/06/2017		Kestrel	1	01:30:00	73				westside hunting	JK
K007	27/06/2017		Kestrel	1	11:15:00	117		Female		Hunting	JK
K008	27/06/2017		Kestrel	1	14:45:00	64		female		Hunting	JK
K009	10/07/2017		Kestrel	1	10:45:00	97		male		Hunting near Doo Lough	JK
K0010	20/07/2017		Kestrel	1	10:06:00	58		Female		Hunting on northside	JK
K0011	20/07/2017		Kestrel	1	12:25:00	84		female		hunting on eastside	JK
K0012	24/07/2017		Kestrel	1	11:42:00	72		female		hunting along WL1 westside	JK

Map Ref. No.	Date	RVP	Species Name	No. of Birds	Time of flight	Duration of flight (s)	Habitat	Activity	Notes on habitat and activity	Comments	Surveyor
K0013	26/04/2018		Kestrel	1	12:05:00	"160"	GS4, (Wet grassland)	Hunting	GS4, (Wet grassland) Hunting	Male Kestrel, observed hunting, hovering at different heights and flying on.	TK
K0014	27/04/2018		Kestrel	1	09:42:00	"20"	GA1, (Improved agricultural grassland)	In flight.	GA1, (Improved agricultural grassland) In flight.	Male Kestrel observed in flight being harassed by Hooded Crow.	TK
K0015	22/05/2018	Area 3	Kestrel	1	17:25:00	"30"	PB2, (Upland blanket bog)	In flight	PB2, (Upland blanket bog) In flight	Male Kestrel seen in flight	TK
K0016	07/06/2018	Area 2 VP 1	Kestrel	1	12:40:00	"120"	PB2, (Upland blanket bog) WD4, (Conifer plantation)	Hunting	PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	Female Kestrel observed hunting.	TK

Map Ref. No.	Date	RVP	Species Name	No. of Birds	Time of flight	Duration of flight (s)	Habitat	Activity	Notes on habitat and activity	Comments	Surveyor
K0017	09/06/2018	vp1	kestrel	1	14:40:00	"245"		Hunting	Hunting	Male Kestrel observed hovering, dropping lower, moving on and hovering again.	TK
K0018	13/07/2018	Area 1 VP 2	Kestrel	1	12:13:00	"120"	WD4, (Conifer plantation) PB2, (Upland blanket bog)	Hunting	WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting		TK
K0019	07/04/2019	RVP 2	Kestrel	1	15:32:00	98	PB2, (Upland blanket bog)	Hunting	PB2, (Upland blanket bog) Hunting	Male Kestrel observed hunting, hovering and flying on.	TK
K0020	07/04/2019	RVP 2	Kestrel	1	15:45:00	312	PB2, (Upland blanket bog) WD4, (Conifer plantation)	Hunting	PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	Male Kestrel observed hunting, hovering and flying on.	TK

Map Ref. No.	Date	RVP	Species Name	No. of Birds	Time of flight	Duration of flight (s)	Habitat	Activity	Notes on habitat and activity	Comments	Surveyor
K0021	08/04/2019	RVP 4	Kestrel	1	13:52:00	34	WD4, (Conifer plantation) PB2, (Upland blanket bog)	In flight	WD4, (Conifer plantation) PB2, (Upland blanket bog) In flight	Female Kestrel in flight over bog/conifer plantation.	TK
K0022	11/05/2019	RVP 3	Kestrel	1	13:20:00	242	PB2, (Upland blanket bog) WD4, (Conifer plantation)	Hunting	PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	Male Kestrel hunting, hovering and flying on.	TK
K0023	14/06/2019	RVP 4	Kestrel	1	14:23:00	68	PB2, (Upland blanket bog) WD4, (Conifer plantation)	In flight/ hunting	Male Kestrel hovering over area of rough grassland/bog before flying on.	Male Kestrel seen hovering before flying on over coniferous forestry out of sight.	TK
K0024	18/06/2019	RVP 3	Kestrel	1	14:56:00	187	PB2, (Upland blanket bog)	Hunting	PB2, (Upland blanket bog) Hunting	Male Kestrel seen hunting, hovering and flying on.	TK
K0025	12/07/2019	RVP 3	Kestrel	1	16:10:00	126	PB2, (Upland blanket bog) WD4, (Conifer plantation)	Hunting	PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	Female Kestrel hunting, hovering and flying on.	TK

Table 1-37 Kestrel Breeding Walkover Transect Survey Data

Map Ref. No.	Survey Date	Trans No.	Time of observation	Species	Target Species	Number of birds	Habitat	Activity	Comments	Surveyor
K001	13/07/2017			Kestrel	Y	1	PB2, (Upland blanket bog) WD4, (Conifer plantation) GA1, (Improved agricultural grassland)	Hunting/hovering		JH
K002	14/07/2017			Kestrel	Y	1	PB2, (Upland blanket bog) WD4, (Conifer plantation) GA1, (Improved agricultural grassland)	Hunting/hovering		JH
K003	14/07/2017			Kestrel	Y	1	PB2, (Upland blanket bog) WD4, (Conifer plantation) GA1, (Improved agricultural grassland)	Hunting/hovering		JH

Map Ref. No.	Survey Date	Trans No.	Time of observation	Species	Target Species	Number of birds	Habitat	Activity	Comments	Surveyor
K004	03/07/2018		13:47:00	Kestrel	Y	1	WD4	PB4, (Cutover bog) GS4, (Wet grassland) WD4, (Conifer plantation)	Male	JK
K005	01/04/2019		10:46:00	Kestrel	Y	1	PB4, (Cutover bog) WD4, (Conifer plantation)	Travelling		JK
K006	01/04/2019		11:35:00	Kestrel	Y	1	PB4, (Cutover bog) WD4, (Conifer plantation)	Hunting		JK

Table 1-38 Kestrel Winter Walkover Transect Survey Data

Map Ref. No.	Survey Date	Trans No.	Time of observation	Species	Target Species	Number of birds	Sex/age	Habitat	Activity	Habitat and Activity	Comments	Surveyor
K001	03/10/2017		14:28:00	Kestrel	Y	1		GS4, (Wet grassland) WD4, (Conifer plantation)	Hunting		Female	JK
K002	05/10/2017		13:50:00	Kestrel	Y	1		GS4, (Wet grassland) WD4, (Conifer plantation)	Hunting		Male	JK
K003	20/12/2017		15:09:00	Kestrel	Y	1		PB4, (Cutover bog)	Hunting in band 2 @15:09		Hunting	JK
K004	02/10/2018			Kestrel	Y	1	Counted	PB3	travelling in band 1	hunting/hovering		JK
K005	02/10/2018			Kestrel	Y	1	Counted	PB3	travelling in band 1	hunting/hovering		JK
K006	02/10/2018			Kestrel	Y	1	Counted	PB3	travelling in band 1	hunting/hovering		JK

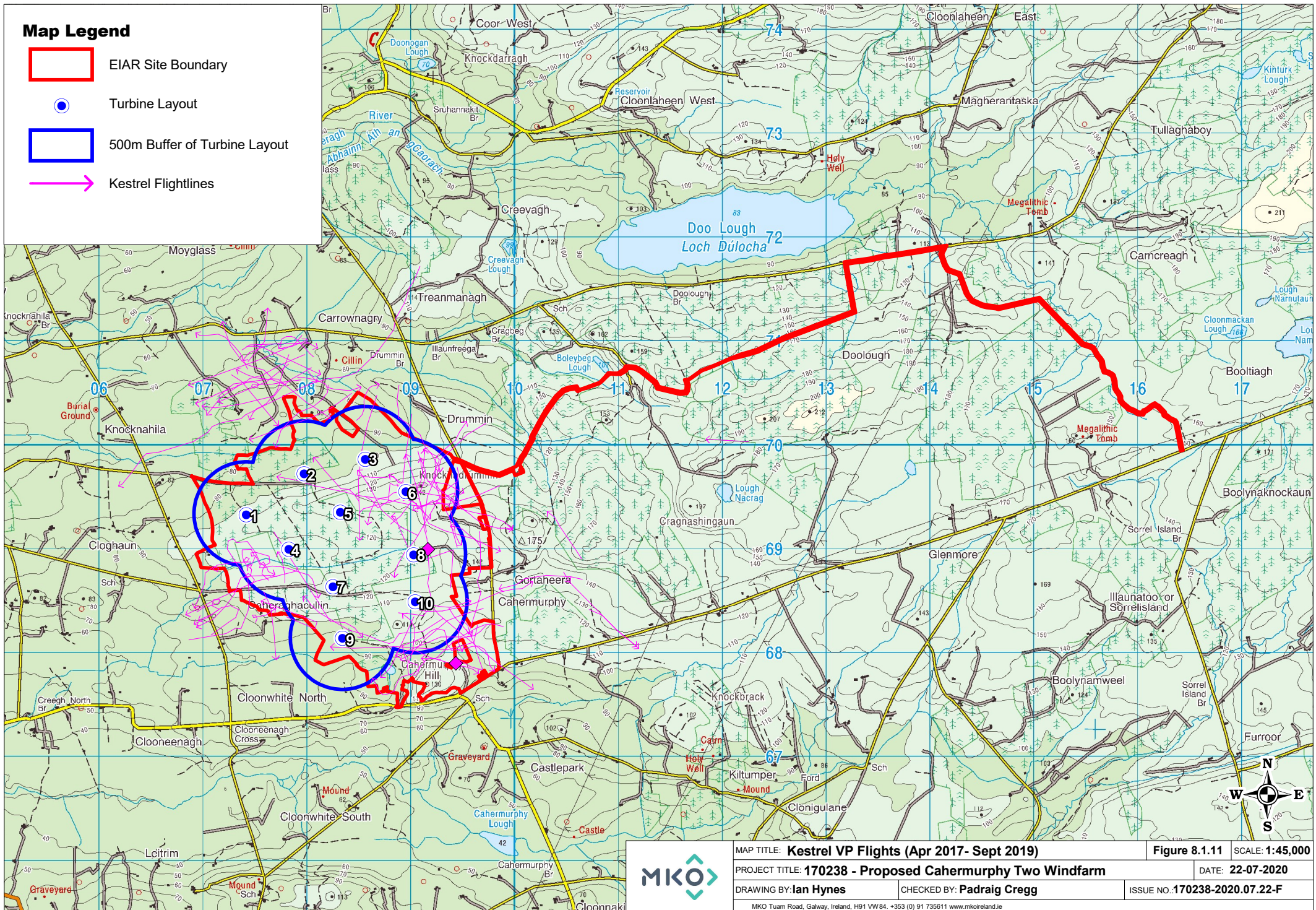
Map Ref. No.	Survey Date	Trans No.	Time of observation	Species	Target Species	Number of birds	Sex/age	Habitat	Activity	Habitat and Activity	Comments	Surveyor
K007	10/10/2018	B	16:04:00	Kestrel	Y	1		GA1, (Improved agricultural grassland)	Bird flew along road edge ahead of observer perching on ESB poles	GA1, (Improved agricultural grassland) Bird flew along road edge ahead of observer perching on ESB poles		CMc
K008	11/01/2019	10		Kestrel	Y	1			Flying		Female Kestrel observed in flight and hovering at 30m	TK
K009	29/01/2019			Kestrel	Y	1			Hunting			JK
K0010	29/01/2019			Kestrel	Y	1			Hunting		female	JK
K0011	04/03/2019		11:20:00	Kestrel	Y	1	adult female		Hunting			JK

Table 1-39 Kestrel Incidental Records

Ref No.	Date	Survey Type	Location	Species	Number of Individuals	Notes	Surveyor
K001	14/11/2018	HHVP	HHVP5	Kestrel	1	Hunting at 16:42	TK
K002	18/12/2018	HH Roost	HHVP5	Kestrel	1	Male Kestrel hovering and flying on	TK
K003	11/03/2019	HHVP	4	Kestrel	1	female hunting on site	Joe K

Map Legend

-  EIAR Site Boundary
-  Turbine Layout
-  500m Buffer of Turbine Layout
-  Kestrel Flightlines



MAP TITLE: **Kestrel VP Flights (Apr 2017- Sept 2019)**

Figure 8.1.11 SCALE: 1:45,000

PROJECT TITLE: **170238 - Proposed Cahermurphy Two Windfarm**

DATE: **22-07-2020**

DRAWING BY: **Ian Hynes**

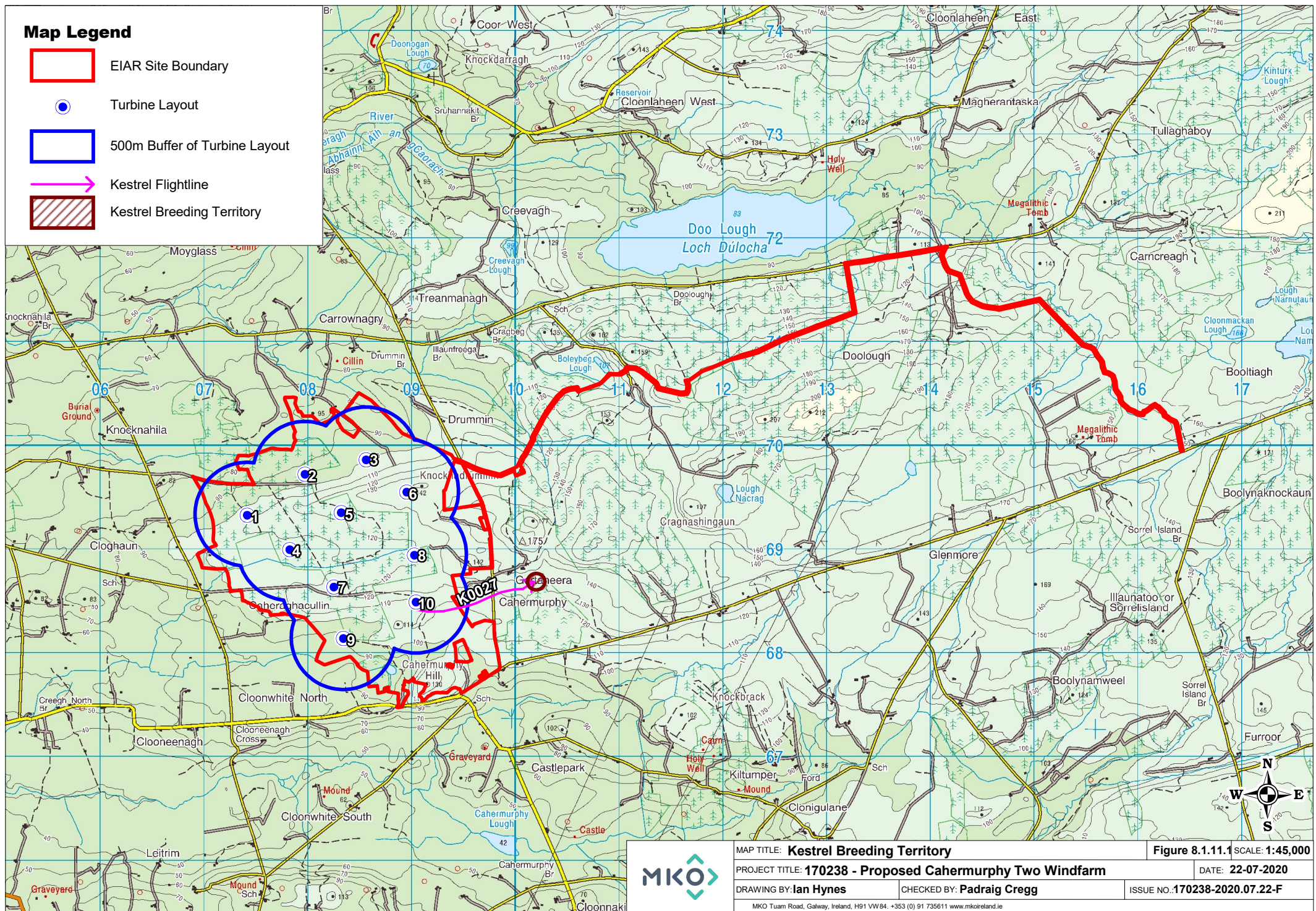
CHECKED BY: **Padraig Cregg**

ISSUE NO.: **170238-2020.07.22-F**

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Map Legend

-  EIAR Site Boundary
-  Turbine Layout
-  500m Buffer of Turbine Layout
-  Kestrel Flightline
-  Kestrel Breeding Territory



MAP TITLE: **Kestrel Breeding Territory**

PROJECT TITLE: **170238 - Proposed Cahermurphy Two Windfarm**

DRAWING BY: **Ian Hynes**

CHECKED BY: **Padraig Cregg**

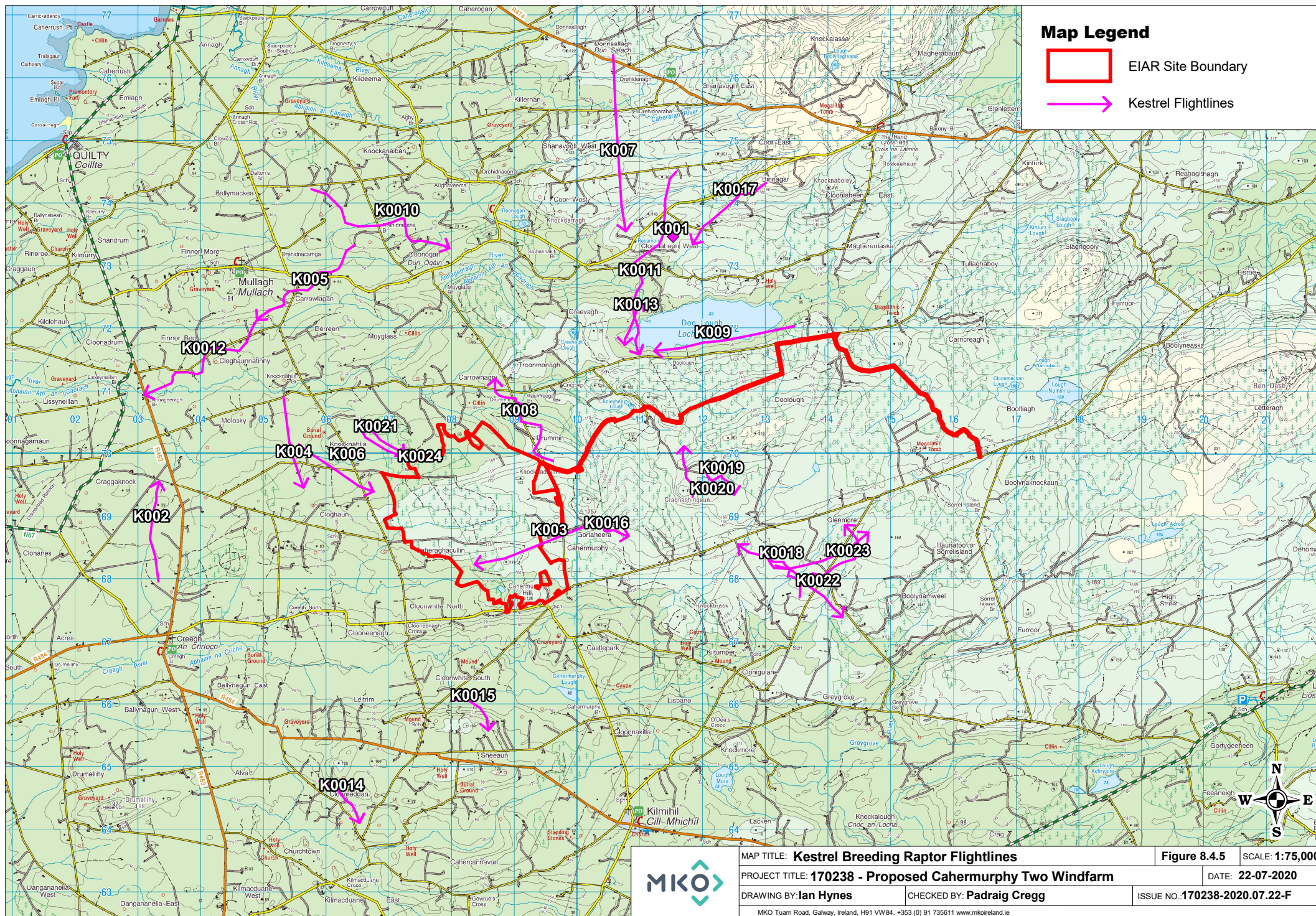
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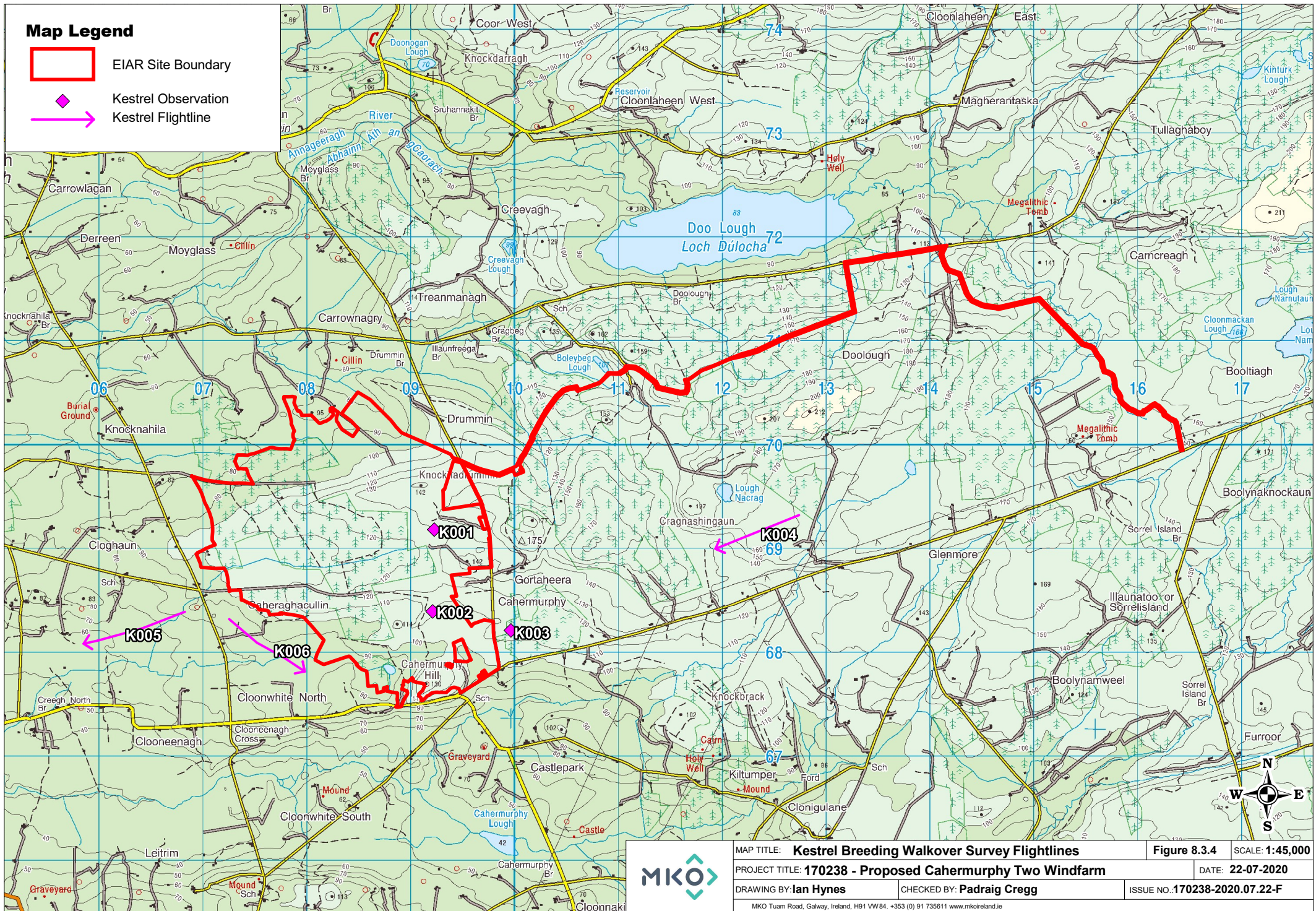
DATE: **22-07-2020**

ISSUE NO.: **170238-2020.07.22-F**

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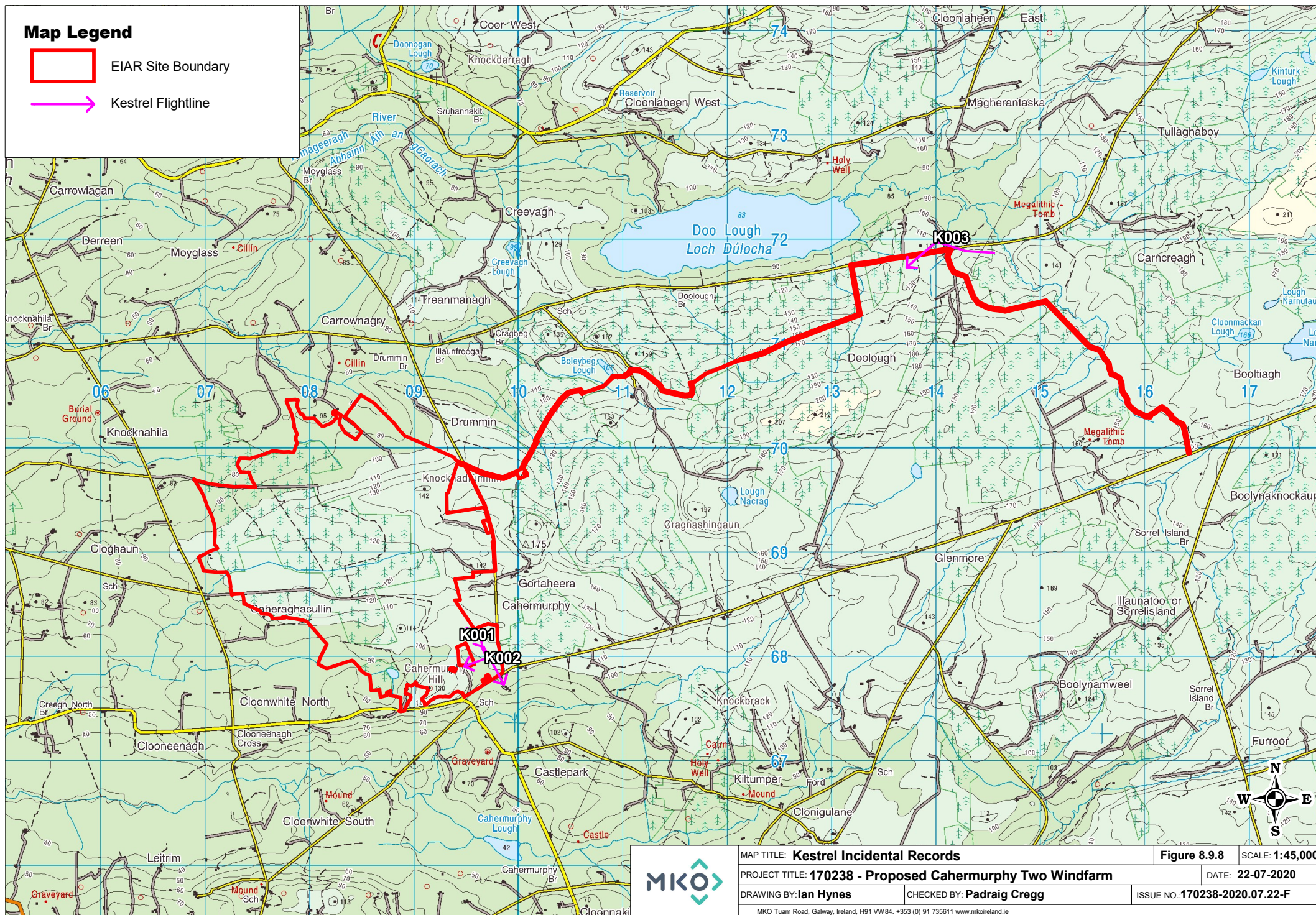
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Map Legend

-  EIAR Site Boundary
-  Kestrel Flightline



MAP TITLE: **Kestrel Incidental Records**

Figure 8.9.8

SCALE: 1:45,000

PROJECT TITLE: **170238 - Proposed Cahermurphy Two Windfarm**

DATE: **22-07-2020**

DRAWING BY: **Ian Hynes**

CHECKED BY: **Padraig Cregg**

ISSUE NO.: **170238-2020.07.22-F**

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Table 1-40 Snipe Vantage Point Survey Data

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
SN001	04/05/2017	VP3	Snipe	2	18:35:00	30	15	15			GS4, (Wet grassland) Travelling		JK
SN002	05/05/2017	VP2	Snipe	2	16:30:00	20	10	10			GS4, (Wet grassland) Travelling		JK
SN003	25/03/2018	VP2	Snipe	1	14:27:00	?					GA1, (Improved agricultural grassland)	Flushed by Hen Harrier	P.Troake
SN004	16/04/2018	VP1	Snipe	16	08:07:00	12			12		GA1, (Improved agricultural grassland) WD4, (Conifer plantation) Flying through	Flying through	CMc
SN005	04/10/2018	VP3	Snipe	8	09:24:00	5		5			PB2, (Upland blanket bog) Flying	Unknown	CMc
SN006	04/10/2018	VP04	Snipe	11	16:20:00	58		58			PB3, (Lowland blanket bog) WD4, (Conifer plantation) Travelling	Flock	JK

Map Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
SN007	14/11/2018	VP3	Snipe	2	12:52:00	25	10	15			PB2, (Upland blanket bog) WD4, (Conifer plantation) Flushed from Ground	Adult	TK
SN008	06/02/2019	VP1	Snipe	4	12:50:00	35		35			Roding		JoeK
SN009	06/02/2019	VP1	Snipe	4	14:19:00	34		34			Roding		JoeK
SN0010	06/09/2019	VP3	Snipe	5	08:21:00	48			48		PB2, (Upland blanket bog) Travelling		JK
SN0011	06/09/2019	VP3	Snipe	2	08:32:00	53			53		PB2, (Upland blanket bog) Travelling		JK

Table 1-41 Snipe Vantage Point Survey (Non-Visual Data)

Final Ref No.	Date	VP	Species	Target Spp (N/Y)	No. of Birds	Habitat	Activity	Notes on habitat and activity	Comments	Surveyor
N/A	15/05/2019	VP1	Snipe	Y		GA1, (Improved agricultural grassland) GS4, (Wet grassland)	Chipping	GA1, (Improved agricultural grassland) GS4, (Wet grassland) Chipping		TK

Table 1-42 Snipe Breeding Walkover Transect Survey Data

Map Ref. No.	Survey Date	Trans No.	Time of observation	Species	Target Species	Number of birds	Habitat	Activity	Comments	Surveyor
SN001	10/04/2017		10:20:00	Snipe	Y	2		Flushed from cover	Male and female	JK
SN002	10/04/2017		10:25:00	Snipe	Y	2		Flushed from cover	Male and female	JK
SN003	10/04/2017		10:40:00	Snipe	Y	2		Flushed from cover	Male and female	JK
SN004	11/04/2017		10:44:00	Snipe	Y	2		Flushed from cover	Male and female	JK
SN005	08/04/2018			Snipe	Y	1		foraging		TK
SN006	09/04/2018			Snipe	Y	1		foraging		TK
SN007	13/05/2019	3	16:05:00	Snipe	Y	1	Upland Blanket bog.	Flushed from ground	Snipe flushed from ground.	TK
SN008	29/05/2019	9		Snipe	Y	1	Upland Blanket bog.	Flushed from ground		TK
SN009	29/05/2019	9		Snipe	Y	2	Upland Blanket bog.	Flushed from ground		TK
SN0010	29/05/2019	13		Snipe	Y	1	Upland Blanket bog.	Flushed from ground		TK
SN0011	08/06/2019	6		Snipe	Y	1	Upland Blanket bog.	Flushed from ground		TK

Map Ref. No.	Survey Date	Trans No.	Time of observation	Species	Target Species	Number of birds	Habitat	Activity	Comments	Surveyor
SN0012	29/07/2019	8		Snipe	Y	1	Upland Blanket bog and Coniferous forestry	Flushed from ground		TK
SN0013	29/07/2019	12		Snipe	Y	1	Upland Blanket bog and Coniferous forestry	Flushed from ground		TK

Table 1-43 Snipe Winter Walkover Transect Survey Data

Map Ref. No.	Survey Date	Trans No.	Time of observation	Species	Target Species	Number of birds	Sex/age	Habitat	Activity	Habitat and Activity	Comments	Surveyor
SN001	02/10/2018			Snipe	Y	12	Flock	PB3		Flushed		JK
SN002	08/12/2018	1		Snipe	Y	1			Flushed from ground			TK
SN003	08/12/2018	4		Snipe	Y	2			Flushed from ground			TK
SN004	08/12/2018	9		Snipe	Y	2			Flushed from ground			TK
SN005	11/01/2019	4		Snipe	Y	2			Flushed from ground			TK
SN006	11/01/2019	7		Snipe	Y	1			Flushed from ground			TK
SN007	11/01/2019	8		Snipe	Y	2			Flushed from ground			TK
SN008	29/01/2019			Snipe	Y	5			Flushed			JK
SN009	10/03/2019	3		Snipe	Y	1			Flushed from ground			TK
SN0010	10/03/2019	4		Snipe	Y	1			flushed from ground			TK

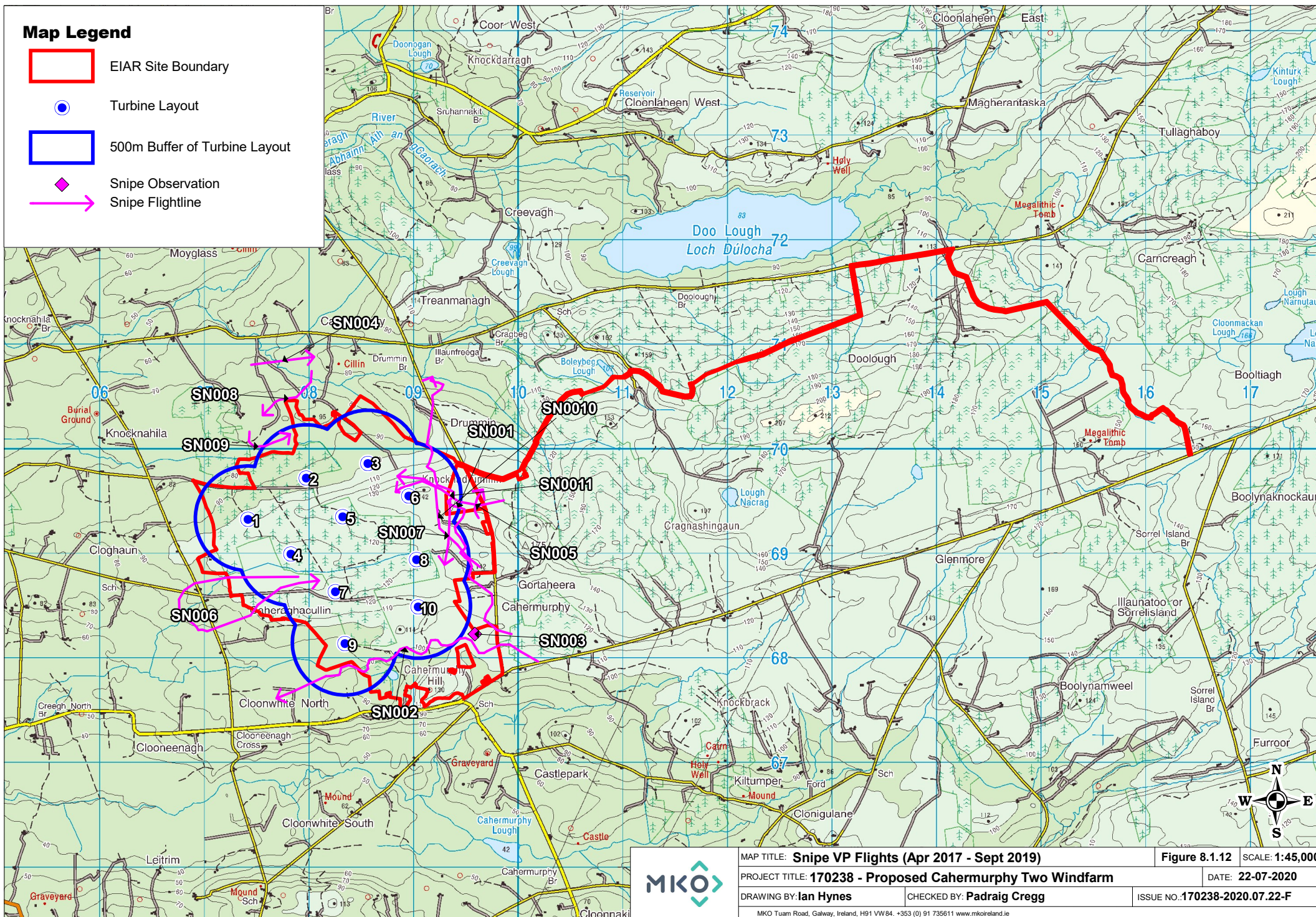
Map Ref. No.	Survey Date	Trans No.	Time of observation	Species	Target Species	Number of birds	Sex/age	Habitat	Activity	Habitat and Activity	Comments	Surveyor
SN0011	10/03/2019	11		Snipe	Y	2			flushed from ground			TK

Table 1-44 Snipe Incidental Records

Ref No.	Date	Survey Type	Location	Species	Number of Individuals	Notes	Surveyor
N/A	03/07/2017	HH Roost survey	HHVP5	Snipe		number os snipe calling	JK
N/A	05/10/2017	HH Roost survey	HHVP6	Snipe		On site	JK
N/A	18/10/2017	HH Roost survey	HHVP3	Snipe		On site	JK
N/A	11/12/2017	HH Roost survey	HHVP10	Snipe	12	Flock flew across site at 16:05pm	JK
N/A	13/02/2019	VP Survey	3	Snipe	5	on way in	JoeK

Map Legend

-  EIAR Site Boundary
-  Turbine Layout
-  500m Buffer of Turbine Layout
-  Snipe Observation
-  Snipe Flightline



MAP TITLE: **Snipe VP Flights (Apr 2017 - Sept 2019)**

Figure 8.1.12 SCALE: 1:45,000

PROJECT TITLE: **170238 - Proposed Cahermurphy Two Windfarm**

DATE: **22-07-2020**

DRAWING BY: **Ian Hynes**

CHECKED BY: **Padraig Cregg**

ISSUE NO.: **170238-2020.07.22-F**

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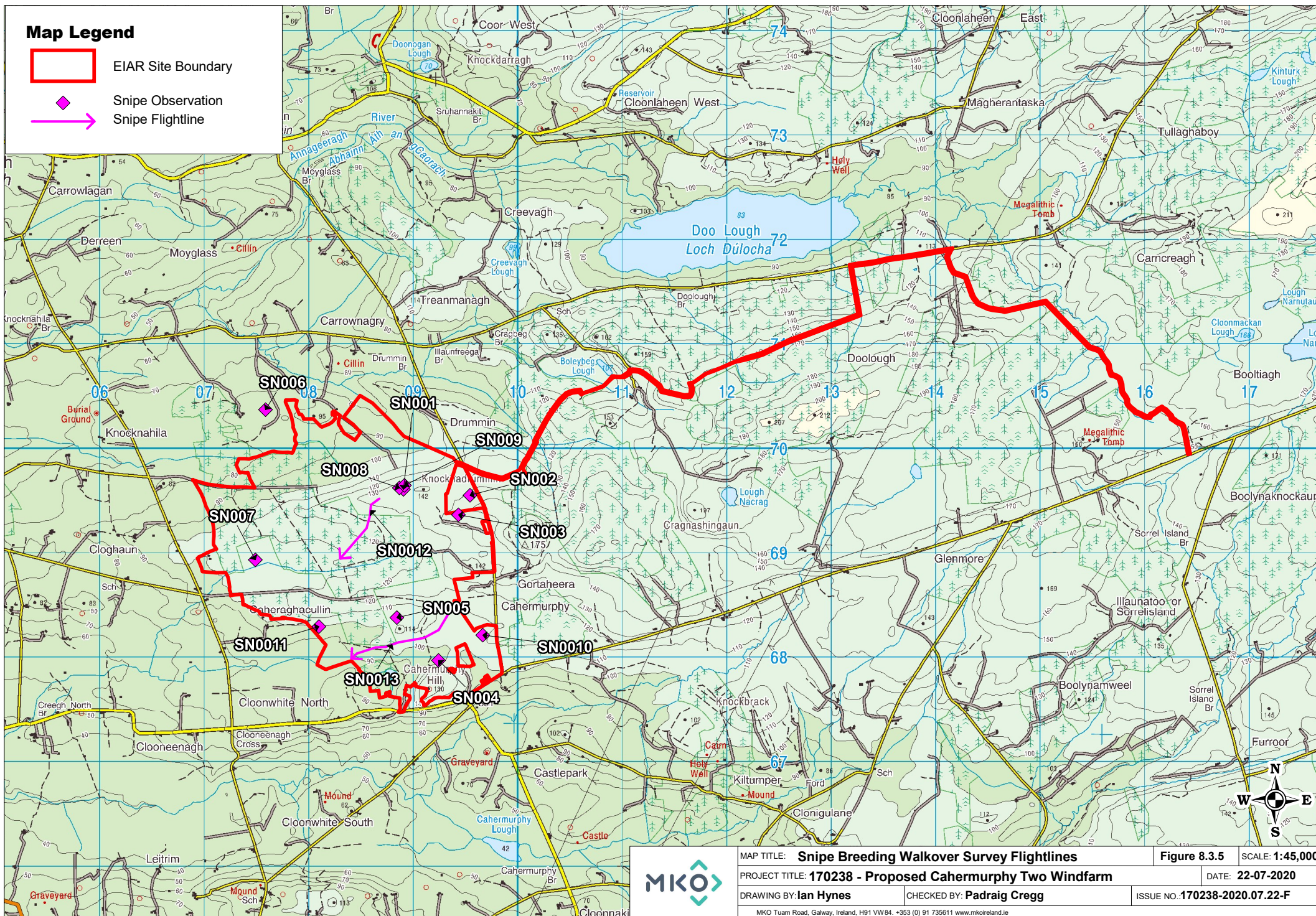


Table 1-45: Meadow Pipit Breeding Walkover Survey Data

Map Ref. No.	Survey Date	Trans No.	Time of observation	Species	Target Species	Number of birds	Habitat	Activity	Comments	Surveyor
MP001	10/04/2017			Meadow Pipit	N	2			Male and female	JK
MP002	10/04/2017			Meadow Pipit	N	2			Male and female	JK
MP003	11/04/2017			Meadow Pipit	N	2				JK
MP004	11/04/2017			Meadow Pipit	N	2				JK
MP005	11/04/2017			Meadow Pipit	N	2				JK
MP006	16/05/2017			Meadow Pipit	N					JK
MP007	16/05/2017			Meadow Pipit	N					JK
MP008	16/05/2017			Meadow Pipit	N					JK
MP009	16/05/2017			Meadow Pipit	N					JK
MP0010	17/05/2017			Meadow Pipit	N					JK
MP0011	17/05/2017			Meadow Pipit	N					JK
MP0012	13/06/2017			Meadow Pipit	N	3		Family		JK
MP0013	13/06/2017			Meadow Pipit	N					JK
MP0014	13/06/2017			Meadow Pipit	N					JK
MP0015	13/06/2017			Meadow Pipit	N	2		Family		JK

Map Ref. No.	Survey Date	Trans No.	Time of observation	Species	Target Species	Number of birds	Habitat	Activity	Comments	Surveyor
MP0016	13/06/2017			Meadow Pipit	N					JK
MP0017	19/06/2017			Meadow Pipit	N			Family		JK
MP0018	19/06/2017			Meadow Pipit	N			Family		JK
MP0019	19/06/2017			Meadow Pipit	N			Family		JK
MP0020	13/07/2017			Meadow Pipit	N		PB2, (Upland blanket bog) WD4, (Conifer plantation) GA1, (Improved agricultural grassland)	Calling		JH
MP0021	13/07/2017			Meadow Pipit	N		PB2, (Upland blanket bog) WD4, (Conifer plantation) GA1, (Improved agricultural grassland)	Calling		JH

Map Ref. No.	Survey Date	Trans No.	Time of observation	Species	Target Species	Number of birds	Habitat	Activity	Comments	Surveyor
MP0022	13/07/2017			Meadow Pipit	N		PB2, (Upland blanket bog) WD4, (Conifer plantation) GA1, (Improved agricultural grassland)	Calling		JH
MP0023	13/07/2017			Meadow Pipit	N		PB2, (Upland blanket bog) WD4, (Conifer plantation) GA1, (Improved agricultural grassland)	Calling		JH

Map Ref. No.	Survey Date	Trans No.	Time of observation	Species	Target Species	Number of birds	Habitat	Activity	Comments	Surveyor
MP0024	13/07/2017			Meadow Pipit	N		PB2, (Upland blanket bog) WD4, (Conifer plantation) GA1, (Improved agricultural grassland)	Calling		JH
MP0025	14/07/2017			Meadow Pipit	N		PB2, (Upland blanket bog) WD4, (Conifer plantation) GA1, (Improved agricultural grassland)	Calling		JH

Map Ref. No.	Survey Date	Trans No.	Time of observation	Species	Target Species	Number of birds	Habitat	Activity	Comments	Surveyor
MP0026	14/07/2017			Meadow Pipit	N		PB2, (Upland blanket bog) WD4, (Conifer plantation) GA1, (Improved agricultural grassland)	Calling		JH
MP0027	14/07/2017			Meadow Pipit	N		PB2, (Upland blanket bog) WD4, (Conifer plantation) GA1, (Improved agricultural grassland)	Calling		JH
MP0028	08/04/2018			Meadow Pipit	N					TK
MP0029	08/04/2018			Meadow Pipit	N					TK
MP0030	08/04/2018			Meadow Pipit	N					TK
MP0031	08/04/2018			Meadow Pipit	N					TK

Map Ref. No.	Survey Date	Trans No.	Time of observation	Species	Target Species	Number of birds	Habitat	Activity	Comments	Surveyor
MP0032	08/04/2018			Meadow Pipit	N					TK
MP0033	08/04/2018			Meadow Pipit	N					TK
MP0034	09/04/2018			Meadow Pipit	N	3				TK
MP0035	09/04/2018			Meadow Pipit	N					TK
MP0036	09/04/2018			Meadow Pipit	N					TK
MP0037	22/04/2018			Meadow Pipit	N					TK
MP0038	22/04/2018			Meadow Pipit	N					TK
MP0039	22/04/2018			Meadow Pipit	N					TK
MP0040	22/04/2018			Meadow Pipit	N					TK
MP0041	22/04/2018			Meadow Pipit	N					TK
MP0042	22/04/2018			Meadow Pipit	N					TK
MP0043	06/05/2018			Meadow Pipit	N					TK
MP0044	06/05/2018			Meadow Pipit	N					TK
MP0045	06/05/2018			Meadow Pipit	N					TK
MP0046	06/05/2018			Meadow Pipit	N					TK

Map Ref. No.	Survey Date	Trans No.	Time of observation	Species	Target Species	Number of birds	Habitat	Activity	Comments	Surveyor
MP0047	06/05/2018			Meadow Pipit	N					TK
MP0048	06/05/2018			Meadow Pipit	N					TK
MP0049	06/05/2018			Meadow Pipit	N					TK
MP0050	06/05/2018			Meadow Pipit	N					TK
MP0051	20/05/2018			Meadow Pipit	N					TK
MP0052	20/05/2018			Meadow Pipit	N					TK
MP0053	20/05/2018			Meadow Pipit	N					TK
MP0054	20/05/2018			Meadow Pipit	N					TK
MP0055	20/05/2018			Meadow Pipit	N					TK
MP0056	20/05/2018			Meadow Pipit	N					TK
MP0057	30/05/2018			Meadow Pipit	N					TK
MP0058	30/05/2018			Meadow Pipit	N					TK
MP0059	30/05/2018			Meadow Pipit	N					TK
MP0060	30/05/2018			Meadow Pipit	N					TK
MP0061	30/05/2018			Meadow Pipit	N					TK

Map Ref. No.	Survey Date	Trans No.	Time of observation	Species	Target Species	Number of birds	Habitat	Activity	Comments	Surveyor
MP0062	30/05/2018			Meadow Pipit	N					TK
MP0063	30/05/2018			Meadow Pipit	N					TK
MP0064	30/05/2018			Meadow Pipit	N					TK
MP0065	30/05/2018			Meadow Pipit	N					TK
MP0066	30/05/2018			Meadow Pipit	N					TK
MP0067	04/06/2018			Meadow Pipit	N					TK
MP0068	04/06/2018			Meadow Pipit	N					TK
MP0069	04/06/2018			Meadow Pipit	N					TK
MP0070	04/06/2018			Meadow Pipit	N			Carrying food		TK
MP0071	04/06/2018			Meadow Pipit	N					TK
MP0072	04/06/2018			Meadow Pipit	N					TK
MP0073	05/06/2018			Meadow Pipit	N					TK
MP0074	05/06/2018			Meadow Pipit	N					TK
MP0075	05/06/2018			Meadow Pipit	N	3				TK
MP0076	05/06/2018			Meadow Pipit	N					TK

Map Ref. No.	Survey Date	Trans No.	Time of observation	Species	Target Species	Number of birds	Habitat	Activity	Comments	Surveyor
MP0077	05/06/2018			Meadow Pipit	N					TK
MP0078	05/06/2018			Meadow Pipit	N					TK
MP0079	08/07/2018			Meadow Pipit	N					TK
MP0080	08/07/2018			Meadow Pipit	N	3				TK
MP0081	08/07/2018			Meadow Pipit	N					TK
MP0082	08/07/2018			Meadow Pipit	N					TK
MP0083	08/07/2018			Meadow Pipit	N	2				TK
MP0084	08/07/2018			Meadow Pipit	N					TK
MP0085	08/07/2018			Meadow Pipit	N					TK
MP0086	08/07/2018			Meadow Pipit	N					TK
MP0087	08/07/2018			Meadow Pipit	N					TK
MP0088	15/07/2018			Meadow Pipit	N					TK
MP0089	15/07/2018			Meadow Pipit	N					TK
MP0090	15/07/2018			Meadow Pipit	N					TK
MP0091	15/07/2018			Meadow Pipit	N	2				TK

Map Ref. No.	Survey Date	Trans No.	Time of observation	Species	Target Species	Number of birds	Habitat	Activity	Comments	Surveyor
MP0092	15/07/2018			Meadow Pipit	N					TK
MP0093	15/07/2018			Meadow Pipit	N	2				TK
MP0094	13/05/2019	2		Meadow Pipit	N	1	Conifer and bog	singing/calling		TK
MP0095	13/05/2019	2		Meadow Pipit	N	1	Conifer and bog	singing/calling		TK
MP0096	13/05/2019	4		Meadow Pipit	N	3	Upland Blanket bog.	singing/calling		TK
MP0097	13/05/2019	5		Meadow Pipit	N	2	Upland Blanket bog.	singing/calling		TK
MP0098	13/05/2019	5		Meadow Pipit	N	1	Upland Blanket bog.	singing/calling		TK
MP0099	13/05/2019	6		Meadow Pipit	N	1	Upland Blanket bog.	singing/calling		TK
MP00100	13/05/2019	6		Meadow Pipit	N	2	Upland Blanket bog.	singing/calling		TK
MP00101	29/05/2019	8		Meadow Pipit	N	1	Upland Blanket bog.	Flushed from ground		TK
MP00102	29/05/2019	10		Meadow Pipit	N	3	Upland Blanket bog.	Flushed from ground		TK

Map Ref. No.	Survey Date	Trans No.	Time of observation	Species	Target Species	Number of birds	Habitat	Activity	Comments	Surveyor
MP00103	29/05/2019	11		Meadow Pipit	N	1	Upland Blanket bog.	Flushed from ground		TK
MP00104	29/05/2019	12		Meadow Pipit	N	1	Upland Blanket bog.	Flushed from ground		TK
MP00105	29/05/2019	12		Meadow Pipit	N	1	Upland Blanket bog.	Flushed from ground		TK
MP00106	29/05/2019	12		Meadow Pipit	N	1	Upland Blanket bog.	Flushed from ground		TK
MP00107	29/05/2019	13		Meadow Pipit	N	2	Upland Blanket bog.	Flushed from ground		TK
MP00108	29/05/2019	13		Meadow Pipit	N	2	Upland Blanket bog.	Flushed from ground		TK
MP00109	08/06/2019	2		Meadow Pipit	N	2	Upland Blanket bog.	Flushed from ground		TK
MP00110	08/06/2019	3		Meadow Pipit	N	1	Upland Blanket bog.	Flushed from ground		TK
MP00111	08/06/2019	3		Meadow Pipit	N	1	Upland Blanket bog.	Flushed from ground		TK
MP00112	08/06/2019	3		Meadow Pipit	N	2	Upland Blanket bog.	Flushed from ground		TK

Map Ref. No.	Survey Date	Trans No.	Time of observation	Species	Target Species	Number of birds	Habitat	Activity	Comments	Surveyor
MP00113	08/06/2019	4		Meadow Pipit	N	2	Upland Blanket bog.	Flushed from ground		TK
MP00114	08/06/2019	5		Meadow Pipit	N	2	Upland Blanket bog.	Flushed from ground		TK
MP00115	08/06/2019	5		Meadow Pipit	N	1	Upland Blanket bog.	Flushed from ground		TK
MP00116	30/06/2019	8		Meadow Pipit	N	1				TK
MP00117	30/06/2019	9		Meadow Pipit	N	3				TK
MP00118	30/06/2019	9		Meadow Pipit	N	1				TK
MP00119	30/06/2019	10		Meadow Pipit	N	4				TK
MP00120	30/06/2019	11		Meadow Pipit	N	2				TK
MP00121	30/06/2019	12		Meadow Pipit	N	2				TK
MP00122	30/06/2019	12		Meadow Pipit	N	2				TK
MP00123	30/06/2019	12		Meadow Pipit	N	1				TK
MP00124	04/07/2019	2		Meadow Pipit	N	3	Upland Blanket bog and Coniferous forestry	Flushed from ground		TK

Map Ref. No.	Survey Date	Trans No.	Time of observation	Species	Target Species	Number of birds	Habitat	Activity	Comments	Surveyor
MP00125	04/07/2019	2		Meadow Pipit	N	1	Upland Blanket bog and Coniferous forestry	Flushed from ground		TK
MP00126	04/07/2019	3		Meadow Pipit	N	1	Upland Blanket bog and Coniferous forestry	Flushed from ground		TK
MP00127	04/07/2019	3		Meadow Pipit	N	2	Upland Blanket bog and Coniferous forestry	Flushed from ground		TK
MP00128	04/07/2019	4		Meadow Pipit	N	2	Upland Blanket bog and Coniferous forestry	Flushed from ground		TK
MP00129	04/07/2019	4		Meadow Pipit	N	2	Upland Blanket bog and Coniferous forestry	Flushed from ground		TK
MP00130	04/07/2019	5		Meadow Pipit	N	2	Upland Blanket bog and Coniferous forestry	Flushed from ground		TK

Map Ref. No.	Survey Date	Trans No.	Time of observation	Species	Target Species	Number of birds	Habitat	Activity	Comments	Surveyor
MP00131	04/07/2019	6		Meadow Pipit	N	2	Upland Blanket bog and Coniferous forestry	Flushed from ground		TK
MP00132	29/07/2019	8		Meadow Pipit	N	2	Upland Blanket bog and Coniferous forestry	Flushed from ground		TK
MP00133	29/07/2019	9		Meadow Pipit	N	1	Upland Blanket bog and Coniferous forestry	Flushed from ground		TK
MP00134	29/07/2019	9		Meadow Pipit	N	3	Upland Blanket bog and Coniferous forestry	Flushed from ground		TK
MP00135	29/07/2019	10		Meadow Pipit	N	3	Upland Blanket bog and Coniferous forestry	Flushed from ground		TK
MP00136	29/07/2019	11		Meadow Pipit	N	2	Upland Blanket bog and Coniferous forestry	Flushed from ground		TK

Map Ref. No.	Survey Date	Trans No.	Time of observation	Species	Target Species	Number of birds	Habitat	Activity	Comments	Surveyor
MP00137	29/07/2019	12		Meadow Pipit	N	1	Upland Blanket bog and Coniferous forestry	Flushed from ground		TK
MP00138	29/07/2019	12		Meadow Pipit	N	1	Upland Blanket bog and Coniferous forestry	Flushed from ground		TK
MP00139	29/07/2019	12		Meadow Pipit	N	2	Upland Blanket bog and Coniferous forestry	Flushed from ground		TK
MP00140	29/07/2019	12		Meadow Pipit	N	1	Upland Blanket bog and Coniferous forestry	Flushed from ground		TK

